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**Successful Strategic Alliance Management:
A Process Perspective to the Case
Hewlett-Packard - Nokia Telecommunications**

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TIIVISTELMÄ

Stragisten allianssin määrä on kasvanut yhä enenevässä määrin viime vuosien aikana. Kasvava kilpailu sekä kotimaisilla että kansainvälisillä markkinoilla on pakottanut yritykset etsimään uusia keinoja saavuttaa ja säilyttää kilpailuetua. Kaikki allianssit eivät kuitenkaan menesty vaan kuolevat jopa hyvin lyhyen ajan jälkeen. Syitä strategisen allianssin menestykselle on siis alettu etsiä aktiivisesti.

Tavoitteet

Tutkimuksen tavoitteena oli määritellä strategisen allianssin menestystekijöitä allianssin eri vaiheiden aikana. Ensin pyrittiin määrittelemään strateginen allianssi ja motiiveja strategiselle yhteistyölle. Sen jälkeen aiempaan kirjallisuuteen perustuen pyrittiin määrittelemään prosessi, jonka eri vaiheiden aikana tarvitaan erilaisia menestystekijöitä. Viimeisenä pyrkimyksenä oli määritellä strategisen allianssin menestystekijät. Teorian pohjalta luotiin prosessiviitekehys, joka kuvastaa allianssin eri vaiheita. Merkittävä osa viitekehystä oli taulukko, johon kaikista kriittisimmät menestystekijät oli koottu kukin tietyn allianssin vaiheen kohdalle.

Tutkimusmenetelmä

Koska tutkimuksen tarkoituksena oli tutkia prosessia, valittiin tutkimusmenetelmäksi case study-tutkimus. Tärkeimpänä tietolähteenä käytettiin case-yksikön, Hewlett-Packardin ja Nokia Telecommunicationsin välisen allianssin, johtajien ja työntekijöiden haastatteluja. Myös muita tietolähteitä käytettiin, jotta saataisiin mahdollisimman eheä ja oikea kuva allianssin historiasta ja tilasta.

Tutkimustulokset

Case-tutkimus Hewlett-Packardin ja Nokia Telecommunicationsin välisestä strategisesta yhteistyöstä antoi arvokasta tietoa ennen kaikkea kyseisille yrityksille allianssin tilasta ja ongelmista. Tutkimus osoitti, että allianssia on vaikea johtaa ja sen menestystekijät ovat paljolti riippuvaisia toisistaan. Menestystekijöistä kriittisimmiksi havaittiin luottamus, ymmärtämys, sitoutuminen, huolellinen suunnittelu sekä erojen ennakointi.

Avainsanat

Strateginen yhteistyö

Menestys

Prosessi

Hewlett-Packard

Nokia Telecommunications

ABSTRACT

During the last few years, more and more strategic alliances have been formed. The competition both in domestic and international markets has forced companies to search for new ways to succeed and remain competitive. All the alliances are not successful, however, and they might fail only within a short period of time. Therefore, researchers have more and more started to look for the underlying reasons for strategic alliance success or failure.

Purpose of this study

The purpose of this study was to find out how to manage a strategic alliance successfully during the different stages of alliance process. First, the definition and rationale for strategic alliance was introduced. Second, alliance process was examined in the light of previous research. Third, an overview of determinants of success was presented. Finally, a process framework with different alliance stages was introduced. An important part of the process framework was a table where the most critical determinants of success during the alliance process were pictured. The determinants of success were divided into business and interpersonal activities.

Methodology

The purpose of this study was to gain insight into a process. Therefore, the most suitable method was case study approach. The case unit was the strategic alliance between Hewlett-Packard and Nokia Telecommunications. The key people of the alliance were interviewed extensively and other data collection methods were used to support and assess as holistic picture of the history and state of the alliance as possible.

Findings

The case of Hewlett-Packard - Nokia Telecommunications strategic alliance offered valuable information about the state of the alliance as well problems especially to the companies in question. The findings suggested that it is extremely difficult to manage a strategic alliance successfully. Also, the findings gave an indication of the interconnection between the different determinants of success. The most critical activities were trust, understanding, commitment, careful planning and anticipation of the differences.

Keywords

Strategic alliance

Success

Process

Hewlett-Packard

Nokia Telecommunications

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1. INTRODUCTION

1.1 Background to the Study

In the highly competitive and global business environment of today, firms are forced to discover forms to cope with fast developing technology and greater amount of knowledge. Particularly within high tech industries where the growing knowledge intensity and need for more rapid innovation are sources of competitive advantage, the number of strategic alliances has grown remarkably at an annual rate of over 25 per cent since 1985 (Pekar & Allio 1994, 54). A recent study reported that between 1987 and 1992 more than 20,000 new alliances were established only in the US and nearly 6% of the revenue generated by the 100 top US firms now stems from alliances (Harbison & Pekar 1994).

Actually, the formation of contractual strategic alliances such as joint ventures is not a new phenomenon. However, currently firms are increasingly collaborating through non-equity ventures particularly popular in fast-developing industries such as computers and telecommunications (Pekar & Allio 1995, 55). Generally, strategic alliances are established to reduce risk and uncertainty, to increase competitiveness in one way or another, and thus enhance the success of both partners in the alliance. While some estimations suggest that 60% of alliances will finally fail and vanish, the question arises how to succeed (Bleeke & Ernst 1993, 2). Nevertheless, according to Stiles (1995, 6) the concept of failure should be questioned as the various kinds of measurement tools present different statistics and may change as the alliance evolves.

The intensive formation of strategic alliances and the signs of failure have led to enthusiastic study of the subject. Most of the studies so far have concentrated on defining the alliance and understanding the early steps of alliance process, i.e. strategic alliance formation and partner selection (e.g. Lewis 1990, Lorange &

Roos 1992, Pekar & Allio 1995, Spekman & Sawhney 1990). The success of a strategic alliance is traditionally more or less considered to be a selfevident result of advisable execution of the decisions at the early phases of the alliance process. On the contrary, only restricted interest has been given to the later stages such as renegotiating and modifying alliances over time. In other words, research about how to succeed in the tactical management of strategic alliance after establishment has only recently emerged (Spekman et al. 1995, Spekman et al 1996).

Furthermore, to be able to renegotiate and modify the alliance over time, it is of utmost importance for alliance managers to blamelessly review the success as well as the demands and tensions from time to time. As a matter of fact, the ability to review and question the state of the alliance is considered a healthy gesture of commitment and care in the strategic alliance (Spekman et al. 1995, 16).

1.2 Purpose of the Study and Research Question

As previously described, it is widely acknowledged that alliances are difficult to manage and that they are characterized by a high failure rate. Regardless of this, some alliances prosper and are very successful. The early stages such as strategic alliance formation and partner selection as areas of study are often inadequate to explain the success of certain strategic alliances. Therefore, a substantial need to understand the more profound, underlying elements of successful strategic alliance management has arisen.

The most recent studies affirm that the successful alliance management is based on the understanding of alliance process (Bronder & Pritzl 1992, Forrest 1992, Gulati et al. 1994, Spekman et al. 1995, Spekman et al. 1996). Just like a growing child needs specific care and attention at different times of development, so does an alliance present unique challenges at each stage of its evolution. Not only does this study aim at providing an overview of what a strategic alliance is

but it also attempts to find out the stages of evolution which a strategic alliance goes through. However, the emphasis of the present study lies in finding out what aspects should be considered during the various alliance stages to become and even more importantly, to remain successful.

Therefore, the objective of this study is to increase the knowledge of alliance managers, and thus enable them to manage alliance through the various stages of alliance process more efficiently and successfully. Taking these factors into consideration, the main research question is:

"How to manage a strategic alliance successfully during the different stages of alliance process?"

In early 1994, Hewlett-Packard Company (HP), an international manufacturer of measurement and computation products and systems, and Nokia Telecommunications (NTC), a leading supplier of digital telecommunications networks, formed a strategic alliance with the initial focus on development of Intelligent Network (IN) Systems. The alliance has survived for over two and half years now and is still alive and performing well in business terms such as sales. However, it is of great importance to both partners to review the strategic alliance performance within the context of alliance process to be able to define the areas of success and even more importantly, the possible problem areas undermining the success. The empirical study deals with these factors in the HP-NTC strategic alliance.

1.3 Definitions and Limitations

The key definitions used in this study are presented in the Table 1.

Table 1: Definitions

<i>Definition:</i>	<i>Meaning:</i>
Strategic Alliance i.e. Strategic Partnership/ Collaboration/ Cooperative Arrangement	a close, long-term, mutually beneficial agreement between two or more partners which strive for enhancing the competitive position of each partner by sharing resources, knowledge and capabilities (Spekman et al. 1995, 4)
Sequential Process	a process that unfolds in a linear and successive fashion
Cyclical Process	a process that unfolds in a cyclical, repetitive and ongoing way
Management of an alliance (to manage an alliance)	the capacity to shape and direct the 'world' actively, a process subsuming five elements (Hales 1993,2): 1) deciding/planning what is to be done, and how 2) allocating time and effort to what is to be done 3) motivating, or generating the effort to do it 4) coordinating and combining disparate efforts 5) controlling what is done to ensure that it conforms with what was intended

In this study, a strategic alliance is neither considered to be static of its nature nor a powerless operation without any possibility to steer its own direction. A

strategic alliance is seen as a *dynamic* entity experiencing distinctive strategic and managerial challenges during each stage of alliance process (Gulati et al. 1994, 61; Spekman et al., 1995, 9).

Additionally, the form of alliance concentrated in this research is contractual alliance in which partners agree on explicit commitments but collaborate only on non-equity basis (Lewis 1990, 5). Also, the empirical study of HP-NTC strategic alliance concentrates only on the collaboration in the field of Intelligent Network (IN) Systems. Other possible co-operation between the firms is not included in the present study.

1.4 Structure of the Study

The paper is divided into five chapters. Firstly, Chapter 1 offers background to this study in the forms of purpose, research question, definitions, limitations and structure of the study. Secondly, Chapter 2 provides a literature review on the strategic alliance rationale and alliance process are examined where a special emphasis is put on the later stages i.e. the actual running of daily affairs of the alliance. Moreover, the determinants of successful alliance management are introduced. Finally, the process framework for this study based on the literature review is determined and presented. Also, the synthesis of determinants of success i.e. the business and interpersonal activities enhancing success are introduced to be able to review the alliance management.

In Chapter 3, the methodology used in this study will be presented. Moreover, Chapter 4 portrays the empirical findings of HP-NTC strategic alliance carried out by using a case study method. Both former and present key persons of both companies were interviewed extensively and the responses were then analyzed. Finally, Chapter 5 concludes the present study in the form of major findings, managerial implications as well as suggestions for further research.

2. SUCCESSFUL MANAGEMENT OF STRATEGIC ALLIANCE IN DIFFERENT STAGES OF ALLIANCE PROCESS

This chapter aims at providing an overview of what strategic alliances are and why they have become so popular. Furthermore, Section 2.2 describes two different process perspectives in the alliance management literature. In Section 2.3 elements of strategic alliance success are introduced. Finally, this chapter ends with Section 2.4 providing the process framework for this study.

2.1 Strategic Alliance and Its Rationale

The term “strategic alliance” is very widely encompassed with a variety of organizational forms such as cooperative agreements, cross-licensing, distribution agreements, outsourcing arrangements, R&D partnerships, joint bidding activities and joint ventures (Spekman & al. 1995, 4). Sometimes even long-term purchasing agreements and mergers/acquisitions are considered to be forms of strategic alliances (Murray & Mahon 1993, 102).

Definitions of strategic alliance often incorporate themes like compatible and strategically significant goals, mutual benefits, shared risks and pooled strengths (Lewis 1990, 1; Marcar Strategic Alliance Guidelines and Best Practices, 1996; Murray & Mahon 1993, 103; Spekman et al. 1995, 4). In this study the following definition by Spekman et al. (1995,4) is used to understand the very nature of a strategic alliance:

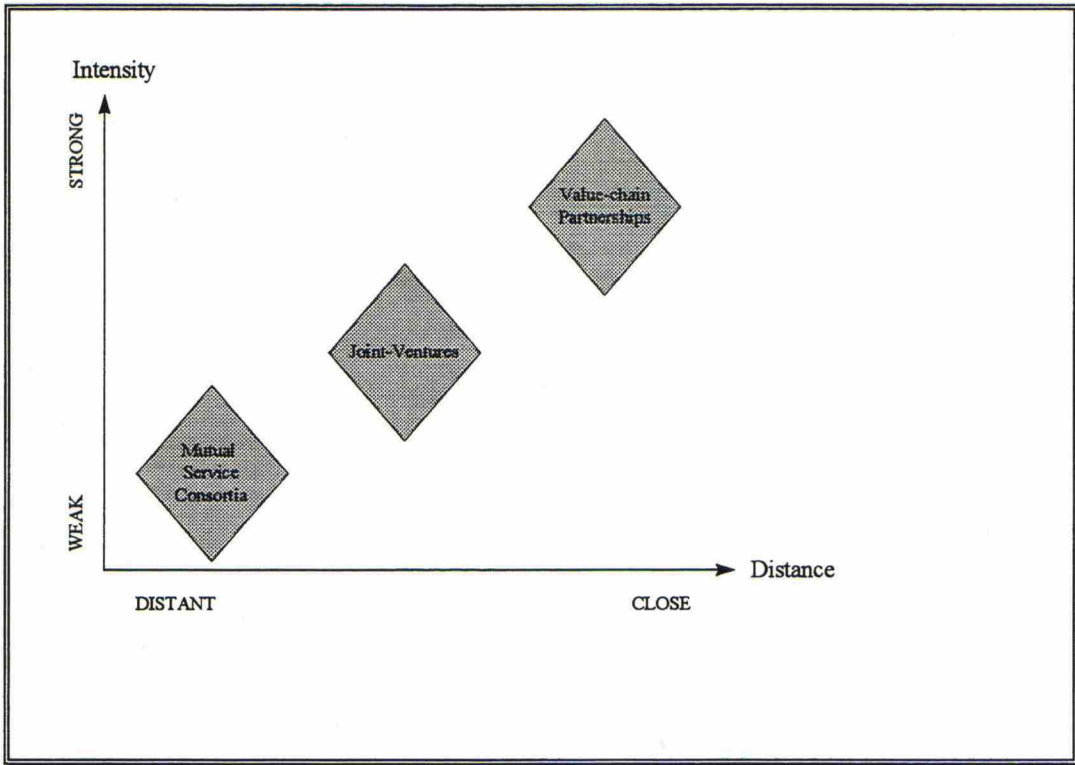
A strategic alliance is a close, long-term, mutually beneficial agreement between two or more partners in which resources, knowledge, and capabilities are shared with the objective of enhancing the competitive position of each partner.

This definition clearly explains the special features of a strategic alliance such as intensity, time-frame and rationale thus distinguishing a strategic alliance from a normal buyer-seller relationship. It also includes the very essential dimensions of sharing and improving the competitive positions of partners because of mutual interest.

Most of the studies so far have used terms strategic alliance, strategic partnership, collaboration and cooperative arrangements as synonyms (Bery & Bowers 1993, 67-78; Kanter 1994, 96-108; Kumar & Nti 1995, 4; Ohmae 1989, 143-154). Only lately have some researchers questioned the synonymous use of these terms (Ralf et al. 1995, 37). However, as the purpose of this study is to define the process and the success factors, the possible superficial difference between the above mentioned terms is not essential. Therefore terms strategic alliance, strategic partnership, collaboration and cooperative arrangements are used synonymously in this study as already mentioned in Table 1.

Moreover, the cooperative arrangements encompass a wide continuum from weak and distant to strong and close (Kanter 1994, 98). At one end of continuum, mutual service consortia portrays the situation where companies in similar industries combine their resources to reach goals which are too expensive to be attained alone. In the middle, in joint ventures partners look for each others capabilities to pursue an opportunity together. According to Kanter (1994, 98) the strongest, closest and highest commitments exist among value-chain partnerships. They appear whenever companies in different industries with different but complementary skills pool their abilities to create value for ultimate customers. However, companies can simultaneously cooperate in many kinds of relationships and may also play different roles in the relationship (Kanter 1994, 98). The continuum of different types of strategic alliances is introduced in Figure 1.

Figure 1: Varieties of Relationships



The intensity and distance of the relationship influence the amount of communication, coordination and cooperation needed in the relationship. For example a mutual service consortia can be managed with lesser amount of coordination than a value-chain partnership where both partners have a great deal at stake. (Spekman & Sawhney 1990, 16)

Furthermore, the reasons to collaborate through strategic alliances vary. Lorange & Roos (1992,7) suggest that alliances are either offensive or defensive. Offensive alliances seek through the collaboration an access to markets and/or technology, to reduce political risk, to restructure the business or simply to block competitive rivalry (Hamel 1990, 5; Lorange & Roos 1992, 7; Murray & Mahon 1993, 106; Spekman & Sawhney 1990, 17). Defensive alliances on the other hand, are formed

to catch up the markets, to upgrade market position, to secure resources, to reduce financial risk of an expensive technology or an operation, or to gain economies of scale (Lorange & Roos 1992, 8-9; Murray & Mahon 1993, 106; Ohmae 1989, 143-154).

Another perspective is offered by Lorange et al. (1992, 10) who suggest that there are four general motives for strategic alliances: to defend, to catch up, to remain or to restructure. First, the defensive alliances aim at building and developing firm's specialties through learning new technologies or accessing difficult markets. The business is then of primary importance to a firm's portfolio. Second, some alliances are employed to move a certain core business of a company from a follower towards a leader in the business segment. This kind of alliances try to catch up with the business trends as effectively as possible. (Lorange et al. 1992, 10-11)

Third, sometimes the main motive for alliance formation is to remain in the business. A company could be a leader in its business segment but the business could play a peripheral role in the portfolio of the firm. Sometimes this kind of alliances are even used as a way to get as much efficiency out of a firm's position. Fourthly, another motive to cooperate could be the need to restructure the business of a company. In this case, a company usually is a follower in the business but a particular business plays a peripheral role in its portfolio. (Lorange et al. 1992, 10-11)

Furthermore, Lewis (1990) adds to the discussion by stating several reasons to cooperate. He introduces the following motives for alliance formation:

- a way to add product value
- improved market and resource access
- strengthened operations

- added technological strength
- a way to enhance strategic growth
- organizational reinforcement
- building financial strength
- a way to inhibit opponents

All these motives aim at increasing the competitive advantage of the firms. In fact, firms gain real power through shared learning, focusing on core activities and cooperating with others in areas where they excel. (Lewis 1990, 29-85)

However, the previous literature confirms that alliances are formed for a wide variety of reasons which should be somehow related to the strategic intent of the firm. The underlying motive to form alliances, however, is the organizational strive to manage and control uncertainty as much as possible (Spekman & Sawhney 1990, 19). Ohmae (1989, 112) states that *"No one company can do it all, simultaneously. No one company can keep all the relevant technologies inhouse"*. It is extremely important to understand the current logic of global competition and the value-based needs of customers which are the primary drivers for alliance formation.

Eventually, strategic alliances are in global business to stay. Nevertheless, according to Spekman et al. (1996, 346) alliance managers pay attention too much on alliance formation issues and focus too little on understanding the alliance process and tactical management of a strategic alliance. Consequently, the next step of the study is to find out what an alliance process is.

2.2 Active Management of Change

As previously described, it is widely regarded that alliances are difficult to manage and that they are characterized by a high failure rate. Regardless of this, some alliances prosper and are very successful. Although the importance of the early stages such as strategic alliance formation and partner selection cannot be denied, the early stages alone are often inadequate to explain totally the success of certain strategic alliances.

It is inevitable that changes occur both in the partnership as well as in the environment over time (Doz & Shuen 1987, 3). Some of the changes may be unexpected like technological, political, regulatory or industry changes that cannot be controlled by either partner. On the other hand, some changes might be anticipated or self-guided. In addition to the changes in its own risky and volatile environment, the strategic alliance is also exposed to changes taking place in each parent firm. Because of these changes, different activities and even management styles become appropriate. Gulati et al. (1994, 61-68) even suggest that the success of an alliance may be contingent on their ability to adapt rapidly to any internal or external changes.

Nonetheless, most of the time changes are experienced more or less passively within the alliance. Instead of passive reacting to these changes, a strategic alliance should be actively guided through certain stages to enhance success. For example Doz et al. (in Forrest 1994, 34) remark that *“active management of the partnership, in a clear strategic context, is as important as the initial negotiations and contractual provisions”*. Hales (1993, 2) continues by stating that *“management is an expression of human agency, the capacity actively to shape and direct the world, rather than simply react to it”*. Furthermore, Spekman

et al. (1996, 348) suggest that the activities accomplished at a certain stage affect the events in the following stages. Doz & Shuen (1987, 3) even claim that a collaborative process may have a more remarkable impact on the outcomes than the initial terms of collaboration.

Additionally, Gulati et al. (1994, 62) consider a management process for the day-to-day running of the alliance matters to be important because institutionalizing methods ensures that all parties appreciate the changes. Therefore, it is of utmost importance to understand the significance of the alliance process and know the essential activities during the stages in order to achieve success within an alliance.

As a result, ten different views on strategic alliance processes will be discussed next. They are divided into sequential and cyclical processes depending on the nature of the unfolding phases. The sequential processes unfold in a linear and successive fashion. One phase is followed by another and finally each phase of the process has been completed and the end is reached. The cyclical processes, on the other hand, unfold in a cyclical, repetitive and ongoing way. One cycle of phases is followed by another finally leading to an end.

However, the sequential processes do not involve the continuous shaping and active restructuring of an alliance as efficiently as needed. On the other hand, in the cyclical processes it is assumed that it is necessary to repeat all the phases of the process in each cycle. When these two processes are combined, the long-term characteristics of a strategic alliance as well as the need to carry out certain phases of the process repeatedly, become more visible.

2.2.1 *Sequential Processes*

Traditionally, the research of strategic alliance has been concentrated on issues like understanding the nature of strategic alliance, the definition and dimensions of strategic alliance, partner selection and other problems and issues related to so called pre-alliance phase (Spekman et al. 1995, 3). Furthermore, the early studies of alliances have focused largely upon contractual alliances such as joint-ventures (Lewis 1990; Lorange & Roos 1992; Badaracco 1991). Thus the scope of the studies has not been wide enough to understand the complex interaction between the various phases of the alliance evolution (Spekman et al. 1996, 348).

For instance Lewis (1990) presents valuable ideas of opportunity scanning, partner selection and building alliances. A wide range of advice for developing effective relationships in the alliances and getting more value from alliances is offered but no explicit process is offered to manage the relationships. His view about sustaining success in the strategic alliance is mainly based on management of effective relationships across different cultures (both organizational and national) thus providing helpful advice as such. Lewis (1990), however, does not pay attention to the need for an alliance process and consequently his view is too narrow.

Furthermore, the alliance has been associated traditionally with more or less fixed life span, not as an entity facing evolutionary process. Badaracco (1991, 129-146) considers the alliance management to be a process of learning, creating, sharing and controlling knowledge but his view about the strategic alliance is does not include the cyclical elements of the alliance process at all. He argues that there are certain conditions under which alliances can prosper. However, Badaracco (1991) does not elaborate his ideas into a process at all. Yet, he suggests that the success of the alliance depends on how well the alliance is managed.

As the two previous mentioned research lack the process perspective, a more thorough research of the formation, evolution and management processes of an strategic alliance was established by Lorange and Roos (1992). In their opinion the formation of a strategic alliance can be seen as a multi-step, gradual process, leading to a commitment to enter an alliance. According to the study, the formation process consists of an initial phase and a more intensive phase each dealing with political and analytical issues. Within the initial phase match between the partners, strategic potentials and learning opportunities should be assessed. During the more intensive phase markets and potential competition should be identified, variety of possible scenarios should be generated, political and stakeholder perspectives should be considered. Moreover, a business plan should be created and finally a management team should be formed. (Lorange & Roos 1992)

Additionally, Lorange and Roos pointed out that strategic alliances grow and develop following certain evolutionary patterns in three phases. During these phases there might be shifts in the roles of alliance parents which then gradually lead to the emergence of independent strategic alliance organization. Thus, the outcome of the evolutionary process always tends to be something else than it was originally meant to be. According to the authors, putting special emphasis on management issues like controlling and human resource considerations is therefore extremely important. (Lorange & Roos 1992)

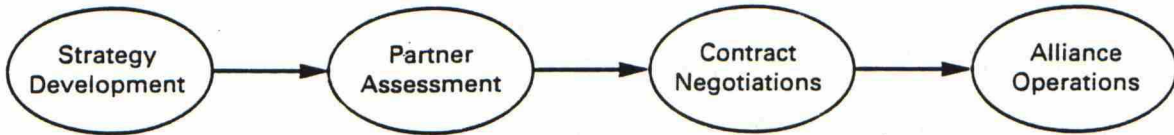
However, the research of Lorange & Roos has focused primarily on joint venture evolution without regard for other possible forms of alliances. Further, it is true that the evolutionary process more or less affects the alliance, and that the strategic alliances always tend to evolve towards something else avoiding a static position. Yet, the emergence of independent strategic alliance organizations (e.g. joint venture) as Lorange & Roos assume would seem in many cases questionable

and not likely to occur. Firstly, the partners might not wish to take such a big step of commitment if the cooperation has proved to be successful otherwise. Secondly, the financial burden could be too heavy if an independent strategic alliance organization was established. Thirdly, some alliances just function better and are more efficient without forming an independent strategic alliance organization. In conclusion, the most important issue for an alliance to succeed, is to remain flexible, not to aim at certain organizational form (Gulati et al. 1994, 68).

Hence, it is essential to understand the more stable although evolving, long-term characteristics of an alliance and in addition to the early stages pay attention to the later phases of the alliance process as well. Recently, the concentration on the tactical, daily management of an alliance has emerged presenting valuable ideas for alliance managers (Gulati 1994, 62; Spekman et al. 1995,3; Spekman et al. 1996, 346).

Initially already in 1987 Pekar and Allio (1994) examined top managers of Fortune 500 companies to find out about their alliance process skills. For this purpose they identified a process consisting of four sequential stages (see Figure 2): strategy development, partner assessment, contract negotiations and alliance operations. In the first two stages feasibility, objectives and rationale of the alliance are studied as well as a thorough analysis of the potential partner is accomplished. In the following stage final objectives, contributions and rewards are determined. As Figure 1 shows, the last stage includes management commitment, budgets, resources and measuring and rewarding alliance performance. (Pekar & Allio 1994, 54-65)

Figure 2: Four Stages of the Strategic Alliance Process



Source: Pekar & Allio 1994, 55

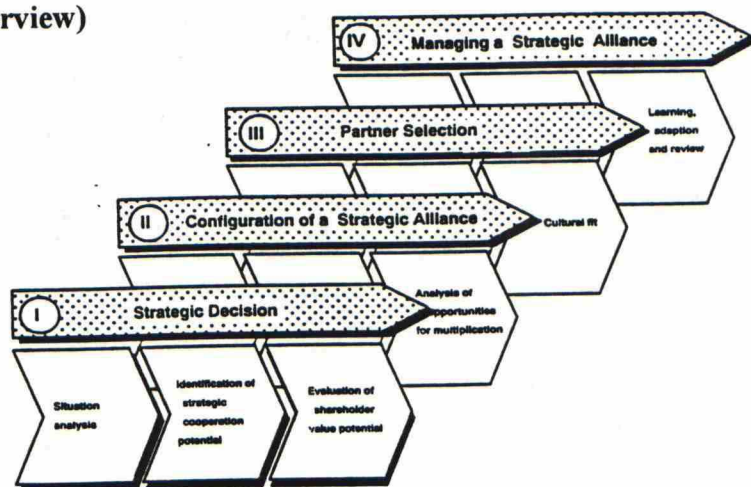
A similar study in 1992 probed alliance managers again and indicated some progress in alliance process. However, the best practices and benchmarking in the alliance management still seemed to be very rare. Additionally, the research suggested that the important question at the moment is not anymore about alliance formation but successful alliance management. Nevertheless, the focus of the process is largely on the early phases i.e. formation leaving the daily management without adequate attention. (Pekar & Allio 1994, 54-65)

Forrest (1992) interestingly argued that understanding how to manage strategic alliances effectively is extremely important to avoid pitfalls during the different stages in the development of an alliance. Her study produced evidence that successful strategic alliances demand effective management throughout the alliance process which is broken down into three stages: the pre-alliance stage (matching and negotiation), the alliance agreement development stage, and the implementation stage. The first stage deals with screening i.e. the choice of a suitable partner and a good fit between the partners. The negotiating stage consists of development of mutual strategic objectives, involvement and identification of management for the alliance and development of trust. A large amount of time and labor should be put in preceding the success of an alliance. (Forrest 1992, 29)

According to Forrest (1992) the comprehensive detailed agreement is developed, resources and duties are allocated during the alliance agreement stage. Moreover, management issues and ways to resolve conflicts are negotiated. However, the agreement should allow enough flexibility for renegotiating or restructuring the alliance. The last stage is implementation where most important issues to be dealt with are mechanisms to facilitate open communication and mechanisms to ensure timely decision-making. Furthermore, the maintenance of good interpersonal relationships, commitment and willingness to modify the alliance objectives when necessary are key elements of this stage. (Forrest 1992, 32-36)

Bronder & Pritzl (1992) see the active developing of strategic alliances quite similarly as Forrest. However, they established a framework with four critical phases: strategic decision, configuration of a strategic alliance, partner selection and managing a strategic alliance (Figure 3).

Figure 3: Management Concept for Strategic Alliances (Conceptual Overview)



Source: Bronder & Pritzl 1992, 413

The decision to investigate an alliance as a strategic alternative is based on situation analysis, identification of strategic cooperation potential and evaluation

of shareholder value potential. In the next step of alliance process, a strategic alliance is configured by analyzing the field of cooperation, intensity of cooperation and opportunities for multiplication where network of companies is cooperating. The third step is partner selection where fundamental, strategic and cultural fit of the partners are the issues to be focused on. The last phase is managing a strategic alliance involving contract negotiations, coordination interface and learning, adapting and reviewing the strategic alliance. (Bronder & Pritzl 1992, 412-421)

Both Forrest (1994) and Bronder & Pritzl (1992) stress the active development and continuous review of a strategic alliance throughout the alliance life as an essential part of corporate success (Forrest 1992, 26; Bronder & Pritzl 1994, 412). Furthermore, Bronder & Pritzl even emphasize that their concept does not represent a precise sequence of logical decisions but several overlapping phases are possible (Bronder & Pritzl 1994, 412).

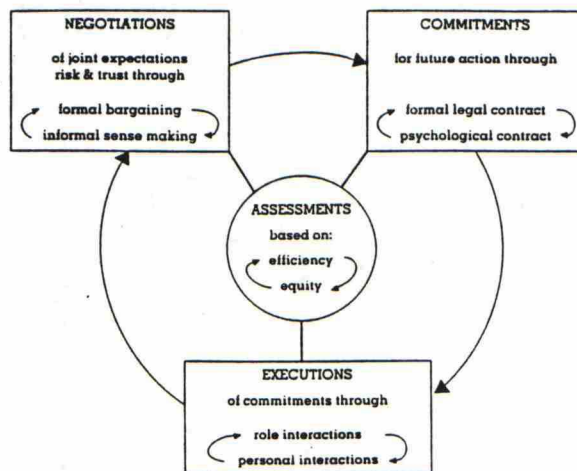
Kanter (1994) adds to the discussion by pointing out that relationships between companies originate, develop and evolve or fail similarly as relationships between people. She considers alliances as living systems that develop progressively in their possibilities and unfold in five overlapping phases. In the first phase called 'courtship', companies meet, find each other attractive and detect their compatibility. In the engagement phase, the deal is planned and closed which is then followed by the third phase - setting up housekeeping and discovering that they have different ideas about how the business should operate. In the fourth phase, techniques and mechanisms are being developed to bridge differences and find out ways to get along. In the last phase companies discover that because of continuous accommodation to the collaboration they have changed internally. In other words, the full value of the relationship stems from learning and borrowing ideas from partners. (Kanter 1994, 96-108)

As a conclusion, the sequential models of strategic alliance processes have developed from almost non-existent and very limited towards broader and more extensive. They now not only embrace the early formation stages but also the implementation within the dynamic and evolving environment and circumstances. The changes experienced in and through the alliance process lead to learning and better understanding of the parties involved.

2.2.2 Cyclical Processes

Another way of looking at the development of strategic alliances is cyclical. A broad and deep scene for the cyclical developmental process is offered by Ring and Van de Ven (1994, 90-118). They argue that process being central to managing interorganizational relationships consists of a repetitive sequence of negotiation, commitment and execution stages which can overlap almost simultaneously. The model outlined in Figure 4 reflects their belief that the development processes are cyclical, not sequential.

Figure 4: Process Framework of the Development of Cooperative Interorganizational Relationships



Source: Ring & Van de Ven 1994, 97

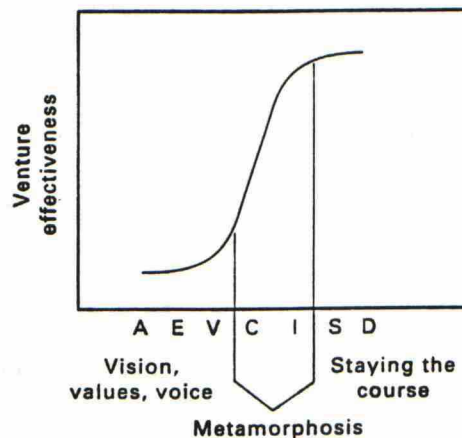
In this model, the first stage is negotiations where the partners develop joint expectations about their motivations, possible investments, and the uncertainties discovered in the deal to be undertaken jointly. In the commitments stage, the terms and governance structure of the relationship are formed. As in the first stage, a series of interactions is often necessary to reach the mutual understanding and an agreement. Finally, in the executions stage, the commitments made earlier become effective and are being carried out. As time passes, misunderstandings, conflicts and evolving expectations of the partners arise and lead to renegotiations. This way the ongoing relationship is sustained and occasionally a new cycle of development is carried out. In the end, parties may reach a conclusion that the deal is either completed or the agreement has been broken, and therefore should be terminated. (Ring & Van de Ven 1994, 90-118)

As the life cycle analysis is a broadly accepted approach in the marketing, management and organizational evolution, some alliance researchers have also begun to describe the strategic alliance process as a life cycle. This perspective is for example expressed by Murray and Mahon (1993, 102-111) as they suggest that a strategic alliance experiences a 'life cycle' of formation, development, maintenance and dissolution. Quite similarly to Kanter (1994), their belief is that an alliance go through five stages which are 'courtship', negotiation, startup, maintenance and endings.

Moreover, Murray and Mahon proposed that the way alliances end is crucial to future alliance activity either with the same or other alliance partner. Their suggestion is that there are three possibilities to end an alliance: 1) the end of a certain relationship but extending into some other areas of mutual interest, 2) a friendly dissolution but no other direct relationships between the partners and 3) a conflicting divorce. (Murray & Mahon 1993, 102-111)

Accordingly, Spekman et al. (1995; 1996, 346-357) consider the alliance process to be an 'S' shaped life cycle curve representing the initiation, growth and decline of a strategic alliance (Figure 5). However, they also examine the particular strategic and managerial challenges that each stage of the life cycle contains but do not combine the cyclical with the sequential process. The 'S' shaped product life cycle curve is further divided into seven life-cycle stages which are marked with letters in Figure 5. Each stage embodies certain activities which are pivotal and unique to the particular life-cycle stage. Additionally, the activities of one stage influence the outcome of the other. It seems also that there is a progress or development through which each alliance must pass. This results from certain uncontrollable factors which lead to a repeating stage or series of stages. (Spekman et al. 1996, 346-352)

Figure 5: The Alliance Life Cycle



Source: Spekman et al. 1996, 351

Table 2 displays these seven stages (letters in Figure 5) and their main characteristics which emerged from a recent, deep study of a number of alliances conducted by Spekman et al. (1996, 346-357).

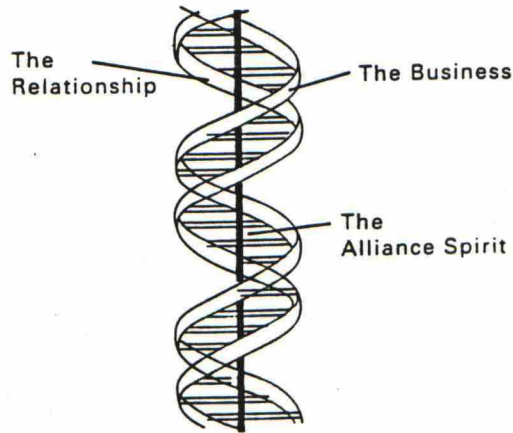
Table 2: The Seven Life Cycle Stages

Alliance Stage	Characteristics
Anticipation	Pre-alliance competitive needs and motivation emerge
Engagement	High-energy complementary, congruence, strategic potential
Valuation	Financial focus, business cases, analysis, internal selling
Coordination	Operational focus, task orientation, division of labor, parallel activity
Investment	Hard choices, committing, recourse reallocation, broadening scope
Stabilization	High interdependence, maintenance, assessment of relative worth and contribution
Decision	Where now?

Source: Adapted from Spekman et al. 1996, 347

In addition, Spekman et al. suggest that “*an alliance is a complex interaction of business and interpersonal activities*” and therefore both business and interpersonal relationships must be understood and included in the life cycle (Spekman et al. 1995, 10). Figure 6 incorporates these two dimensions in a helix form at the same time presenting the spirit of the alliance which grows from the vision of senior management. It involves the fundamental principles, norms, values and ground rules of the alliance which cross the borders of each parent firm and become part of the foundation of the alliance. (Spekman et al. 1996, 350-351)

Figure 6: The Alliance Interrelationships



Source: Spekman et al. 1996, 351

In many cases the interpersonal and the business activities are viewed as a whole. However, according to Spekman et al. (1996, 350) it would be an error to observe an alliance as only a business relationship which moves through its life cycle. The cycles of business and interpersonal activities might not follow each other and therefore equal attention to both ingredients of alliance life cycle must be given.

To conclude, Table 3 brings together the essential parts of the alliance process literature review.

Table 3: A Summary of Previous Research

Author	Description of the Strategic Alliance Process
SEQUENTIAL	
Badaracco 1991	Learning, Creating, Sharing and Controlling Knowledge
Lewis 1990	1) Opportunity scanning 2) Partner selection 3) Building alliances through management of relationships
Lorange & Roos 1992	1) Formation = Initial phase + Intensive phase 2) Evolution 3) Management
Pekar & Allio 1994	1) Strategy development 2) Partner Assessment 3) Contract Negotiations 4) Alliance Operations
Forrest 1992	1) Pre-alliance stage (matching and negotiation) 2) Alliance agreement development stage 3) Implementation stage
Bronder & Pritzl 1992	1) Strategic decision 2) Configuration of a strategic alliance 3) Partner selection 4) Managing a strategic alliance
Kanter 1994	1) Courtship phase 2) Engagement phase 3) Setting up housekeeping 4) Bridging differences and finding ways to get along 5) Discovery of change due to continuous accommodation
CYCLICAL	
Ring & Van de Ven 1994	1) Negotiations 2) Commitments 3) Executions
Murray & Mahon 1993	1) Formation 2) Development 3) Maintenance 4) Dissolution
Spekman et al. 1996	1) Anticipation 2) Engagement 3) Valuation 4) Coordination 5) Investment 6) Stabilization 7) Decision

2.3 Elements of Strategic Alliance Success

This section presents the indicators as well as the determinants of strategic alliance success. Moreover, a closer examination of the determinants of success is carried out to find out the core business and interpersonal activities enhancing the strategic alliance success.

2.3.1 *Indicators of Success*

The success of a strategic alliance is a highly ambiguous concept which should always be seen in the context of specific strategic intents, that is, what the alliance is attempting to achieve. It could be argued that success in a strategic alliance means an positive impact on the competitiveness of each partner. On the other hand, it could be suggested that it means blocking competitors' moves effectively. Or both of these element could be present at the same time.

However, in many cases the rate of success has been connected with the longevity of the strategic alliance, which could be seriously misleading. The alliance may be purposively terminated due to objectives already reached, a new strategic direction or business conditions of either partner or changes in the macroeconomics or competitive situation (Korvenmaa 1994, Spekman et al. 1996, 350). These reasons clearly indicate that a strategic partnership can come to an end without actually failing or dissolving.

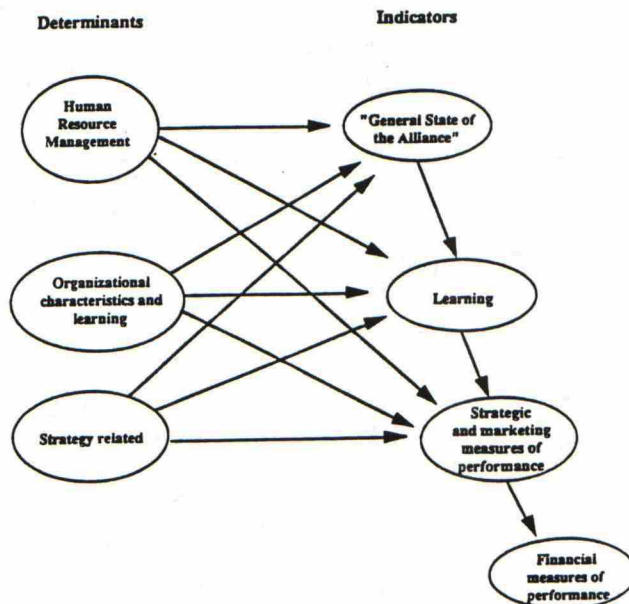
As already noted before, Murray & Mahon (1993, 110) discuss the endings and their significance to a given organization's future alliance activity. If alliance partners view a strategic alliance and its ending as successful, further alliance activities are easily entered. Therefore, it must be accepted that the duration of an alliance cannot be considered a measurement of the alliance success.

Despite extensive research, no consensus exists regarding the definition of either organizational or alliance success or effectiveness. Mohr & Spekman (1994, 136) suggest that an effective measure of partnership success could be the satisfaction of one party with the other. Therefore, the partnership success exists when satisfaction is generated through achieved performance expectations. Yet, Roos & Øijord (1992, 4-5) put forward another way of looking at the alliance performance. They present four indicators reflecting the results of the alliance:

“general state of the alliance”, learning, strategic and marketing measures of performance, and finally, financial measures of performance. These indicators are more or less traditional and short-term performance measures. (Roos & Øijord 1992, 4-5)

However, the determinants of the performance, which explain more closely how the results are being achieved, must be considered as well. The relationship of the performance indicators and determinants is outlined in Figure 7.

Figure 7: A Conceptual Model for Assessing Strategic Alliance Performance



Source: Roos & Øijord 1992, unpaginated

Each arrow in the figure represents a cause and effect relationship between the determinants and indicators as well as between the different indicators in an input-output continuum. The input end of the continuum introduces conditions that should produce measurable outcomes but are not easy to measure. For instance human resource issues are situated at the input end of the continuum. The output end instead deals with the traditional performance measures that represent the

short-term results. Learning as well as indicators related to strategy are found in the middle. Roos & Øijord 1992, 4-6)

Indeed, the previous model well describes the complex interplay between the factors influencing the success of the strategic alliance and the traditional means to measure the success. In this study, however, the emphasis is put on the determinants of success rather than the indicators. Therefore, the following section introduces the success factors more closely.

2.3.2 Determinants of Success

Recently, there has been a shift in focus in the study of alliances from pre-alliance issues towards alliance management and from building the rationale towards understanding the success or failure of the alliances (Spekman et. al 1995, 3). In fact, there already exists a wide spectrum of research focusing on the different factors contributing to the success of the alliance (e.g. Bucklin & Sengupta 1993; Harrigan 1986; Lorange et al. 1992; Mohr & Spekman 1994; Pekar & Allio 1994; Shaugnessy 1995). However, the previous research has only paid limited attention to the different alliance stages and more considerably, to the specific determinants of success needed during the different alliance stages. This section provides an overview of the determinants i.e. success factors that were often mentioned in the previous research.

1. Broad and extensive analyses and planning

Strategic alliance success begins with wide opportunity scanning which leads to the discovery of the best possible alliance ideas (Lewis 1990, 204). Bronder and Pritzl (1992, 413) call the opportunity scanning "a situation analysis" which aims at gaining a broad picture of the external possibilities and trends in the business. This factor has been totally neglected by many researchers in the alliance literature.

Furthermore, analyzing own strengths and weaknesses as well as internal trends and attitudes towards the possible alliance usually results in alliance success (Bronder & Pritzl 1992, 414; Lorange et al. 1992, 14). Moreover, Kanter (1994, 99) argues that self-analysis which covers both the company itself as well as the industry where it operates, is a good way to start an alliance.

Another important analysis to be completed is the evaluation of potential partners. Lewis (1990, 216-224) suggests that there are three basic criteria for partner choice: combined strength, compatibility and commitment. He considers that meeting the three criteria helps reduce opportunism in an alliance. Moreover, to find strategic synergy, partner's competence should be evaluated by analyzing its strengths, weaknesses, resources and track record. Lewis (1990, 216-224) further stresses the importance of getting to know the key people, the cultural match, understanding each other and finally, partner's reputation in earlier alliances.

Lorange et. al (1992, 14) add to the discussion by stating that partner's relevant and available resources over short- and long-term should be studied carefully. Also, they urge to find out the partner's attitudes toward long-term cooperation and plan intensively how to coordinate and adapt their activities that are particularly critical to the alliance. Even more importantly, integration and building shared ways of operating is a prerequisite for success (Kanter 1994, 100).

Bronder & Pritzl (1992, 417) instead stress that finding the right partner is one of the most important success factors of a strategic alliance. They argue that the analysis should concentrate in fundamental, strategic and cultural fit between the partners. First, companies have fundamental fit when activities and expertise complement and thus increase value potential. Second, Bronder & Pritzl (1992, 417) emphasize the importance of compatible strategic goal structures which means that partners should have harmony in business plans, joint specification of

appropriate configuration and common time frame for achieving goals. Thus they will have strategic fit. However, the goals do not need to be similar but compatible (Stafford 1994, 69). Thirdly, partners should be prepared to accept the geographically and internally grown culture of the partner which enhances the cultural compatibility and fit.

2. *Similarity in cultures*

As already mentioned above, especially significant for strategic alliance success is to assess the compatibility of prospective partner cultures. Stafford (1994, 70) argues that overlooking cultural dimensions can lead to serious 'culture clashes' and thus to derailment of the prospect for synergistic benefits. He continues by stating that "*when partners lack compatible cultures and values, expectations and trust between partner employees may not materialize and lead to interpartner employee conflict*". Further, Stafford (1994, 71) argues that despite the amount of time and resources to adapt partners' cultures to one another, it certainly pays well.

In addition, Brouthers et al. (1995, 20) believe that poor human chemistry and abrasive, unpleasant management styles are able to ruin the whole alliance success. Therefore, special attention should be put on synergy of the firms regarding the size of companies, financial resources, internal working environment and possible peer relationships between the top executives (Brouthers et al. 1995, 20). The integration of corporate cultures has therefore become an issue which should be proactively addressed and continually dealt with during the alliance life cycle (Slowinski 1992, 46; Kanter 1994, 106-107). Without cultural sensitivity to each others, partner may fail to resolve problems and even feel that the alliance is not worth the effort (Johnson et al. 1996, 992). In order to succeed in creating a shared culture, requires good communications skills and cultural awareness from the people involved (Kanter 1994, 106-107).

3. *Open communication*

Forrest (1992, 34) suggests that a foremost factor in the operation of successful alliances is open communication between the parties. This applies to all levels involved in the alliance and thus helps to avoid surprises, which can weaken trust (Lewis 1990, 245). In successful alliances effective communication is achieved by putting mechanisms in place to ease communication but formal communications are also regarded as incomplete paths to good relationships (Forrest 1992, 34; Lewis 1990, 245). Therefore, it appears that at least key people of the alliance should be chosen carefully bearing in mind the importance of the communication and negotiation skills in building a strong relationship (Lewis 1990, 291).

4. *Motivated key people*

Lorange et al. (1992, 14) state that “*the success of alliances is shaped by people, choosing individuals for key positions is a vital step in alliance planning*”. Motivated and skilled key people can insure the value creation within the strategic alliance and good interpersonal relationships help resolve small conflicts before they escalate (Lorange et al. 1992, 14; Kanter 1994, 106). Moreover, the alliance manager plays a central role in a successful alliance. According to Spekman et al. (1996, 352-353) the alliance manager should be able to play a number of different roles from a strategic sponsor and networker to a facilitator and mediator. They further argue that most importantly, the alliance manager is a *manager* whose responsibility is to assure that alliance achieves its goals and objectives.

Lewis (1990, 291) presents a rather extensive list of the abilities that key people should possess:

- *suitable technical abilities*
- *negotiations skills*
- *flexibility*
- *humility*

- *risk acceptance*
- *repair skills to rebuild relations*
- *integrity*
- *sensitivity*
- *patience*
- *curiosity*

However, it is worth developing people with relationship-building and cross-cultural skills in order to advance the success (Lewis 1990, 293). Moreover, it is of great significance to the alliance success that committed key people stay in their positions for a while (Lewis 1990, 282-283). It is a very essential way to foster trust, respect and understanding (Slowinski 1992, 46).

5. Trust

Recently, more and more research has emerged about the meaning of trust for alliance performance and success. Johnson et al. (1996, 992) argue that although a relationship might be logical from a business point of view, it may not be able to operate without cultural sensitivity and the eventual resulting trust. Additionally, they claim that lack of trust results in tentative involvement and reluctance to reveal the true motives or share knowledge leading to opportunism (Johnson et al. 1996, 992).

There are certain conditions under which trust can prosper. The most important of them are a good business opportunity, absence of dominance and excessive questioning as well as doubting, flexibility, anticipation of differences, top-quality people and their personal relationships and finally, open communication (Lewis 1990; Smith & Barclay, 1995, 2; Wolff 1994, 15). The previous conditions are by no means the only factors positively influencing the development of trust which is a very difficult phenomenon to study scientifically (see Parkhe 1993, 1).

6. Commitment and alliance agreement

Another difficult phenomenon to study is commitment. According to Spekman & Sawhney (1990, 7) commitment builds from trust. This means that partners can trust each others' words or promises to be reliable and that a party will fulfill its obligations. If partners lose confidence in each other and feel neglected, the partnership might even destroy (Wolff 1994, 14). Therefore, avoiding surprises and paying enough attention to partner's wishes is essential for commitment to sustain (Lewis 1990, 222-223; Wolff 1994, 14).

Considering the above, a well-drafted alliance agreement can help meet the obligations and promises of the partners. According to Kanter (1994, 103) the best agreements consist of three essential components. First, a specific joint activity is included to make the relationship real in practice. Second, a commitment to expand the cooperation is incorporated in the agreement reflecting the willingness to "connect the fates of the companies". Third, the agreement should include clear signs of continuing independence of the alliance partners. However, although assuring continuity of the strategic relationship, Shaughnessy (1995, 28) adds to the discussion by arguing that easy exit terms should be part of the alliance agreement.

7. Flexibility and learning

As already previously mentioned, due to the rapid changes around and within the strategic alliance, there is a need to be extremely flexible in the ways of operating and communicating in an alliance to remain successful and competitive (Gulati et al. 1994, 68; Lewis 1990, 289). Partners cannot afford to be slow and rigid as "*the winning advantage comes from an organization's ability to learn and apply new skills ahead of its opponents*" (Lewis 1990, 289). Furthermore, Kanter (1994, 107) argues that when partners accept teaching and learning roles, they show

interest and respect towards each other. In fact, learning has a positive effect on smoothing over cultural and organizational differences (Kanter 1994, 107).

8. Reviews

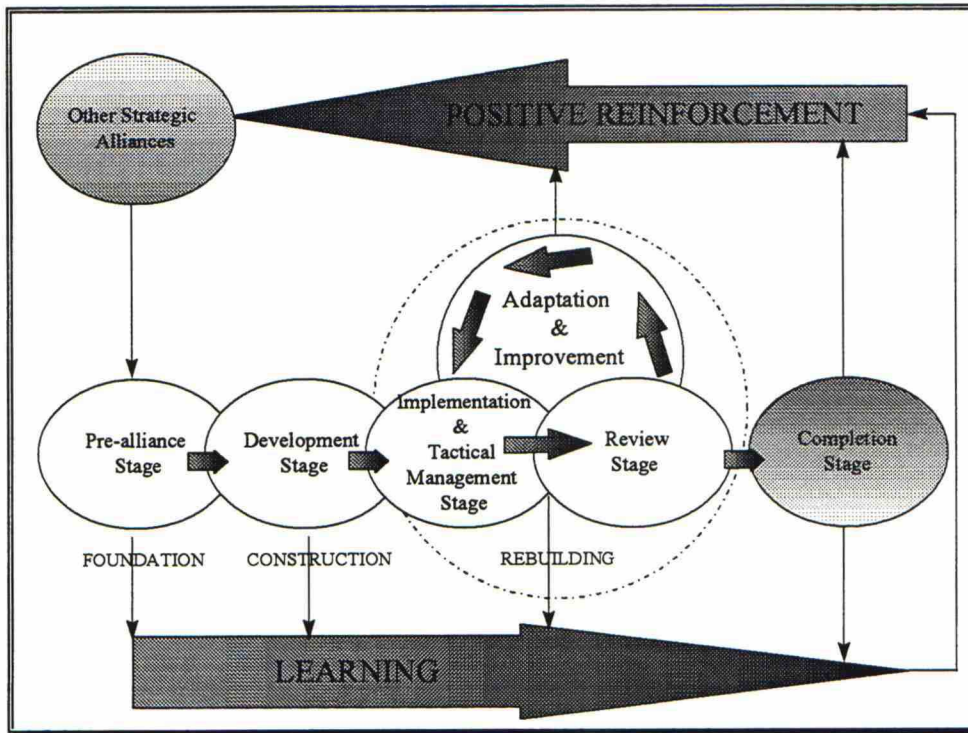
It is inevitable that the dynamic environment of today leads to the need to change strategic objectives of the alliance (Forrest 1992, 34). Regular, periodic reviews in which both parties examine the state of the alliance, can enhance the success of the alliance tremendously (Bronder & Pritzl 1992, 420; Spekman et al. 1996, 350). Consequently, the alliance partners have a possibility to notice the wrong directions and steps taken. Thus, through learning they can improve the alliance and become or remain successful.

The previous list of the determinants of success is by no means exhaustive. Each alliance poses specific needs and operates in a distinct environment. Therefore, it is extremely challenging to manage the alliances due to the changes and fluctuations in the environment. However, in the following chapter a process framework is presented which should enhance the building of success during the different stages of alliance process.

2.4 Process Framework: From Pre-alliance to Conclusion Stage

Researchers in strategic management have begun to search for dynamically based theorizing which would pursue to examine the “temporal interconnectedness of events” (Kumar & Nti 1995, 4; Ring & Van de Ven 1994, 91-92). The literature review confirms that a sequential process framework alone is inadequate to portrait the complexity and the chronology of events during the alliance process. The cyclical approach to alliance process combined with the sequential approach is therefore a more suitable way of examining the alliance process. Figure 9 illustrates a process framework which has been developed especially for this study.

Figure 8: Process Framework: From Pre-alliance to Conclusion Stage



The framework should increase the understanding of the cyclical elements during the alliance process and the continuous need for review and adaptation to remain successful. The *cycle of rebuilding* is consistent with the Ring & Van de Ven's (1994, 97) process framework for analyzing the developmental processes of cooperative interorganizational relationships presented in Figure 4 in Section 2.2.2.

Within the process three major steps can be identified. The same steps are carried out whenever building something. First of all, a *foundation* is needed. During this phase materials for building are analyzed and chosen. Then the physical foundation and corner stone is laid. Secondly, as the reliable and solid foundation has been established, the *construction* begins. Sooner or later the construction is finished and utilization initiates. However, occasionally *rebuilding* of the alliance might

become necessary to remain successful as environment, circumstances, requirements or standards may change. This so called “*cycle of rebuilding*” represents the ongoing and dynamic nature of relationship during which the needs and terms of the collaboration can be reviewed, amended and further implemented and then managed.

Moreover, the three major steps of the alliance process are divided into five overlapping, sometimes almost simultaneous stages. Each of the five stages consists of certain activities which are vital to the alliance success during that stage and which may more or less contribute to the success during the later stages of alliance life-cycle. These activities are either business i.e. task-oriented or interpersonal in nature as proposed in earlier research (Bronder & Pritzl 1992, 419; Kanter 1994, 102; Spekman et al. 1996, 351).

Whereas business activities may be associated with the actual implementation work of the alliance, interpersonal activities describe the elements of relationship between alliance managers and participants requiring substantial energy to build and sustain (Spekman et al. 1996, 351). Kanter (1994, 108) even states that “*intercompany relationships are a key business asset, and knowing how to nurture them is an essential managerial skill.*”. Table 4 depicts the major activities of each alliance stage which enhance the success of the alliance.

Table 4: Business and Interpersonal Activities Enhancing Success

Alliance Stage	Business Activities	Interpersonal Activities
Pre-alliance	<ul style="list-style-type: none"> • Overall situational analysis • Evaluation of internal potential and value creation • Initial partner search and screening 	<ul style="list-style-type: none"> • Top management + internal and external stakeholder support • Selection of committed key people • 'Scouting'
Development	<ul style="list-style-type: none"> • Partner analysis and selection • Strategic match • Building shared vision, values and communication tools • Contract negotiations 	<ul style="list-style-type: none"> • Building rapport • Development of trust and understanding • Management chemistry • Motivating operational staff
Implementation & Tactical Management	<ul style="list-style-type: none"> • Extensive detailed agreement • Coordination • Nonstop communication between all levels 	<ul style="list-style-type: none"> • Commitment • Building personal friendships
Review	<ul style="list-style-type: none"> • 'Auditing' • Monitoring change 	<ul style="list-style-type: none"> • Respect • Honesty • Sense of togetherness
Adaptation & Improvement	<ul style="list-style-type: none"> • Amendment • Reorganization 	<ul style="list-style-type: none"> • Willingness to learn and change • Flexibility
Completion	<ul style="list-style-type: none"> • Easy exit terms • Communication 	<ul style="list-style-type: none"> • Appreciation • Integrity • Diplomacy

The above activities are based on the literature review of the determinants of success presented in Section 2.3.2. Nevertheless, it must be emphasized that the activities are not only important during a single alliance stage but during the whole alliance process. The above table, however, indicates the stage when the activity in question is most essential for building successful alliance relationship.

The framework of this study was employed in case study of the HP-NTC strategic alliance. Both the process framework and the table with business and interpersonal activities were needed to review the state of the alliance as well as the determinants of success or signs of failure in the alliance. Chapter 3 discusses the methodology used in the empirical study.

3. METHODOLOGY

The purpose of this chapter is to introduce the research approach of the present study and provide insight into the empirical study. First, the case study approach and choice of the case study unit is justified. Then the methods of gathering data are presented and validity and reliability aspects are being discussed. Finally, the data analysis procedures of the empirical data are introduced.

3.1 Case Study Research

The purpose of this study was to find out **why** a strategic alliance succeeds and **how** it is and should be managed successfully over the different phases the alliance is going through. Moreover, the aim of the empirical study was to generate insight into the alliance process of the Hewlett Packard-Nokia Telecommunications strategic alliance in order to demonstrate the success factors as well as the possible obstacles for success. In other words, there was a need to collect *detailed information* over the decisions and actions implemented during the strategic alliance *process* in order to gain a *holistic picture* of the state of the alliance and thus to be able to *improve* it.

Patton (1990) suggests that qualitative inquiry strategy is particularly powerful and appropriate when studying and evaluating process. He points out that the aim of the process evaluation is “elucidating and understanding the internal dynamics of how a program, organization, or relationship operates” (Patton 1990, 95).

Furthermore, he indicates that the advantage of the quantitative methods is that it provides a broad, generalizable set of findings concisely. However, if a subject needs to be studied in depth and detail, a qualitative method offers the researcher a more open, naturalistic and holistic view of the issue. In addition, Patton (1990, 99) argues the usefulness of qualitative methods and design strategies especially when evaluating particular cases such as unusual successes or failures.

Considering the purpose of this study, the qualitative method and the case study approach in particular seemed the most preferred and flexible mode of empirical inquiry. As Yin (1989, 18-20) states the first and most important condition for choosing a research strategy is to recognise the type of research question being asked. The case study approach is a preferred strategy if "how" and "why" questions are being asked. Also, the definitions of the case study often stress the investigation of a contemporary phenomenon within real-life context or the dynamics present within single settings (Eisenhardt 1989, 534; Yin 1989, 22-23). Similarly, Patton (1990, 99) suggests that a major reason for conducting a case study is the need to evaluate individualized client outcomes.

As Patton, also Yin declares that the major focus of case studies is often on illumination of decisions or set of decisions, processes or even events. Moreover, the use of the case study strategy is preferred when the researcher has only little or no control over the relevant behavioural events. Finally, he claims that the unique strength of the case study is its ability to combine a variety of evidence as well as the possibility to use it for different purposes - explanatory, descriptive or exploratory. (Yin 1989,15-22).

When investigating the success factors and possible obstacles for success in a strategic alliance, the aim was to outline as accurately as possible the previous activities undertaken during the alliance process and the present state of the alliance. Thus, the researcher had little control over the activities taken by the

people involved in the alliance. Also, the use of case study seemed most reliable way to get intimately acquainted with the research phenomenon. One could argue that it would have been possible to collect empirical data for this study by conducting a survey. However, then the unique strength of case study which is its ability to combine data collection methods would have been missed. Moreover, survey has only limited ability to analyze the context and the complexity of human situations (Yin 1989, 23-24).

3.2 Choice of the Case Study Unit

The most obvious difference between quantitative and qualitative methods is the different sampling logic. Qualitative research typically depends on purposeful sampling whereas quantitative method usually relies on probability sampling (Patton 1990, 169). Also this study attempts to enhance learning about the issues of central importance to the purpose of the study and therefore the choice of the case study unit was done purposefully.

The HP-NTC strategic alliance has been effective since the beginning of 1994. After two years of discussion about the common interests of the companies the agreement was signed in the end of December 1993. The age of the alliance is relatively young as some of the older alliances have a common past for over 20 years (Spekman et al. 1996, 347). However, this strategic alliance has experienced a lot of fluctuations and changes in two highly sensitive areas of alliance management: business situations and key personnel. The Hewlett-Packard (HP) and Nokia Telecommunications (NTC) case was chosen for this study because of the need for evaluation of the state of the alliance and its success.

Furthermore, Patton (1990, 169) suggested that "the logic and power of purposeful sampling lies in selecting *information-rich cases* for study in depth". It seemed that this strategic alliance would be extremely rich in information. The

need for a study of the strategic alliance and its success arose from a very difficult and vulnerable situation experienced in the autumn of 1995 within the alliance. NTC refused to pay certain invoices which both HP Finland and HP France considered to be undisputed. The researcher worked then with the Nokia account team at HP Finland and recognised several misunderstandings and conflicting issues within the strategic alliance between HP and NTC. Thus, the choice of the case study unit was very natural to the researcher because of the everyday observation and contacts with the HP-NTC strategic alliance people.

After speculating the rationale and success of the alliance by herself, the researcher then approached the person responsible of Nokia's global alliance management at HP Finland side, Mr. Vesa Tuomisto. He took an immediate interest in the possible case study proposed by the researcher as the need for evaluation of the current situation and problems was evident. In other words, HP Finland was the organization to originate this study and NTC was easily convinced by the need to review the alliance. HP France instead was surprised by the idea but was also willing to participate. Therefore, it seems that there was a more urgent need for the study among the Finnish counterparts than the French.

Another interesting feature of the HP-NTC alliance was that there are actually three parties involved: NTC, HP Finland (sales field) and HP France in Grenoble (manufacturing division). Although there have been people involved from all three parties since the pre-alliance stage, the three-dimensional structure was probably not yet visible in the beginning of the cooperation. This only increases the richness of the information of this specific case study unit. A summary of the selection criteria for the case study unit is presented in Table 5.

Table 5: Selection Criteria for HP-NTC Strategic Alliance

SELECTION CRITERIA FOR HP-NTC STRATEGIC ALLIANCE
• rich information on strategic alliance process and activities
• need for evaluation and review of the strategic alliance
• researcher's easy access to the information about the strategic alliance
• special features of the strategic alliance adding to the value of information

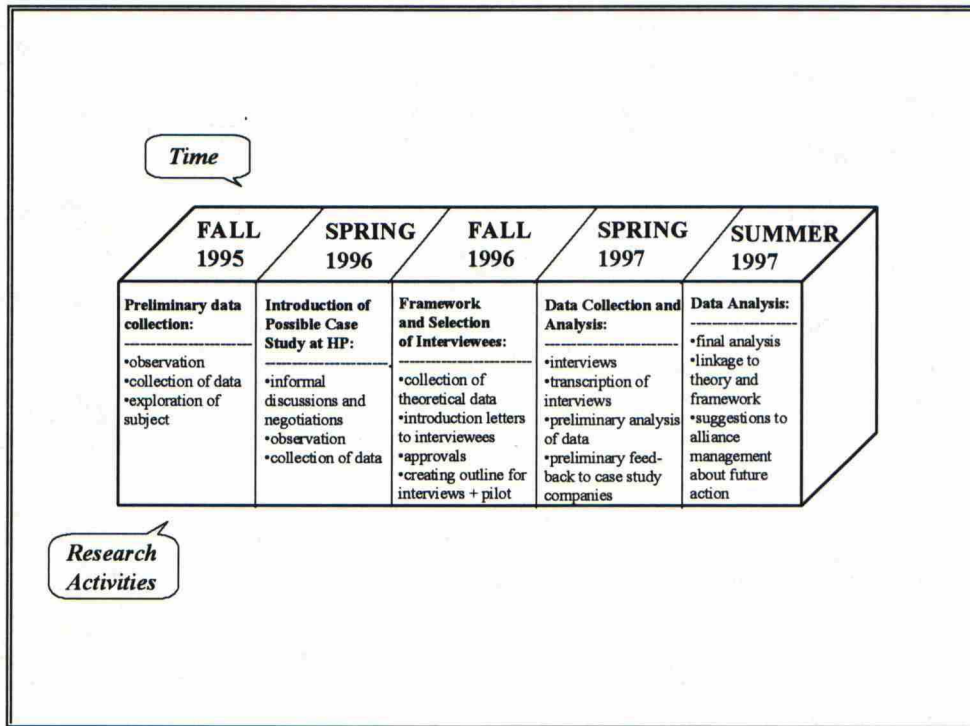
3.3 Data Collection

Common data collection methods in a qualitative case study are interviews, observations, archival sources and documents (Eisenhardt 1989, 534; Yin 1989, 84). All the above mentioned methods were used in this case study. However, the most important source of information for this case study was the interviews but other sources were employed to increase the accuracy and validity of the empirical research. Data were thus triangulated in order to strengthen the study design and avoid bias (Patton 1990, 187).

After discussing carefully the aim, approach and means of this study with Mr. Vesa Tuomisto, the approval to conduct the study was received from all three parties involved. The preliminary data collection had started actually already during fall 1995 as the researcher worked as a customer representative at Hewlett-Packard Oy (HP Finland). Thus the researcher gained familiarity with the tactical, daily work of the alliance. The researcher still works at HP Finland and therefore HP is well-known as an organization to her. Also some parts of Nokia Telecommunications (NTC) organization have become quite familiar to the researcher through her work.

The research process lasted about one and a half years in all until the summer of 1997. However, further analysis of the massive amount of data will continue with the steering group of the alliance and finally, all others concerned with the alliance operations. The whole research process is summarized in the following Figure 9.

Figure 9: Research Process



3.3.1 Archival Sources and Documents

The data collection started by getting acquainted with all the documents and archives about the strategic alliance available at HP Finland premises. Press releases, newspaper clippings, organization charts and process descriptions of the strategic alliance operations were explored. Also e-mail messages, key principles, memoranda and minutes of meetings were used to build as holistic picture of the case as possible. For instance, the press releases and newspaper clippings were very helpful in indicating the top management views about the alliance.

The study of the documents was followed by informal discussions with Nokia Global Account Manager at HP Finland, Mr. Vesa Tuomisto. This resulted in better understanding of the documents available. Having access also to the confidential information was a great advantage for the researcher in gathering preliminary data at HP Finland. The documentary evidence collected during the preliminary data collection phase provided specific details to corroborate information from other sources (Yin 1989, 86).

3.3.2 *Interviews*

As earlier stated, the most important source of data in this study was the interviews. Therefore, the steps followed when outlining the interview design and the actual interview process are presented next.

3.3.2.1 Selection of the Interviewees and Preparation for the Interview

The persons to be interviewed were selected based on Mr. Tuomisto's suggestion because of their direct (either present or past) involvement in the alliance. Also, the questions to be asked were thoroughly evaluated and discussed with Mr. Tuomisto. First, an introductory letter (Appendix 1) was sent to the persons selected for the interviews inquiring their willingness and permission from their organization to participate in the study. None of these persons refused to participate in the study. Second, after the acceptances were received, the interview place and date were agreed either by phone, fax or e-mail. Third, the interviewees received an interview outline prior to the case study interviews (Appendix 2). The interview outline allowed the interviewees to become acquainted with the topics that would be discussed during the interview. Also, the interview outline was especially meaningful to the interviewees who did not work for the strategic

alliance anymore. The conceptual framework of this study was not included in the interview outline at the time.

The selected interviewees included both former and contemporary members of the steering committee and managing teams of the alliance from both companies and all three organizations. Two former members of the HP alliance team were interviewed: one still working at HP but in a different job and another working in the HP-Ericsson joint venture. At Nokia's side, also two former members of the alliance team were interviewed, both still employed by NTC but in different positions. Interviewing the former alliance people resulted in a better understanding of the history of the alliance.

In addition, two timewise shorter interviews were conducted with operational staff of the alliance in France in order to gain more comprehensive insight into the daily cooperation tasks. Interviewing several people from same organizations also increased the construct validity of this study. A comprehensive list of the interviewees and the relevant information about them is available in Appendix 3. However, Table 6 presents the division of the interviewees by organization and country as well as their former or present involvement in the alliance.

Table 6: Division of Interviewees by Organization

INTERVIEWEE	ORGANIZATION	INVOLVEMENT IN THE ALLIANCE
Aba, Olivier	HP France	Past
Boudalier, Pascal "Short Interview"	HP France	Present
Clausel, Gilbert "Short Interview"	HP France	Present
Ilmarinen, Jussi	NTC Finland	Past
Lahtinen, Jorma	NTC Finland	Present
Lintusaari, Jukka	NTC Finland	Past
Lipiäinen, Juha	NTC Finland	Present
Marton, Virgil	HP France	Present
Moilanen, Jari	HP Finland	Present
Tuomisto, Vesa	HP Finland	Present

3.3.2.2 Interview Outline and Pilot Interview

The interviews were designed to be of an open-ended nature, in which the facts as well as the respondents' opinions about events were inquired (Yin 1989, 89). The structure of the interview outline (Appendix 2) completely followed the structure of the framework of this study and the questions were based on the interpersonal and business activities pivotal to the success of the alliance (see Table 4). The interview outline was of the same kind to both HP and NTC employees. In other words, a standardized set of questions was used which increased the comparability of the responses (Patton 1990, 285).

According to Patton (1990, 287), however, it is possible to combine a standardized open-ended approach with an interview guide approach which allows more flexibility in the choice of the issues to be explored. This was successfully implemented in the present study. In the actual interview situation the interview outline was roughly followed. Nevertheless, sometimes additional questions were asked to capture exactly the respondents' opinion.

Moreover, some of the managers interviewed had not been working for the strategic alliance from the beginning and some were not anymore involved in the alliance operations. Therefore, some questions could not be answered by some respondents because of the vague understanding they had about the matter in question. For instance, questions about the early stages of the alliance could not be included in some interviews due to the respondents' lack of knowledge about the history of the alliance. Combining the two strategies of qualitative interviewing increased the flexibility tremendously and seemed to affect the interview atmosphere positively.

The interview outline was tested in a pilot interview which took place in December 1996 with a Finnish NTC manager. The wording and number of questions as well as the structure of the interview was then tested. Also, the length of the interview and the functionality of the tape recorder was examined. Some minor changes were made to the order of the questions. For instance, originally questions about the final stage i.e. the conclusion stage such as exit terms, formed an independent part in the outline. However, after the pilot interview those questions were encompassed as part of the questions about the development stage in order to avoid misunderstanding of the meaning of the questions.

Despite the pilot interview, it was later discovered that the interview outline could have been less structured and standardized. In most of the interviews, the problems of this specific alliance were introduced by the managers already in the

beginning when only general concepts of strategic alliance success were being inquired and defined. In other words, the questions were sometimes answered already before they were asked. However, sometimes the second response later was even more comprehensive and thus only added more value to the interview.

3.3.2.3 Interview Situation

The study entailed nine in-depth interviews with managers on all three sides of the strategic alliance between December 1996 and February 1997. As mentioned already earlier, to gain even wider comprehension of the research phenomenon, also two shorter interviews with French operational staff were conducted. All the interviews were taped with the permission of the interviewees and they lasted from 90 minutes to 2 hours in length. None of the respondents seemed to be annoyed by the tape recorder. In Finland, the interviews (6) were completed either in an office or a meeting room but in France the interviews (5) took place in a typical HP office: open-plan, doorless office.

Despite one exception, the quality of the tapes was excellent. The inferior quality of one interview was due to the acoustic image of the meeting room. However, also this tape as well as the other eight interviews were transcribed word by word to a Word-data file to ensure the easy processing of data during the description and analysis phase. The researcher also took field notes during the interviews. If the interviewee drew for instance an organization chart, it was either copied to the field notes by the researcher or the original sketch was included in the case study data base with the permission of the interviewee.

The language used in interview situations was English. However, before or after the formal interview some Finnish interviewees shared their opinions about the relevant topics informally in Finnish. All the respondents were non-native speakers of English. Their knowledge of English was relatively good as each of them

needed the working knowledge of English in their daily work. Five of the eleven persons interviewed were French and the cultural difference was somewhat visible in the style of the answers. For instance, the French interviewees used more positive language when discussing the personal relationships, the future and their satisfaction with the alliance than their Finnish counterparts.

On the other hand, it was noticed only later during the interview process that some questions had an unclear wording. The question "Is operational staff somehow motivated to work for this alliance?" can have two different meanings. Some managers answered the question *if* the operational staff *is* motivated to work for this alliance, other managers answered the question *how* the operational staff is motivated by the management to work for this alliance. However, both responses were valuable for the study.

The framework of this study was introduced to the interviewees to increase their understanding of the alliance process and the stage of the alliance. The introduction sometimes preceded the interview, sometimes it was presented as a conclusion to the discussion. In the latter case, only the division of the questions was shortly explained to the interviewees in the beginning of the discussion. Nevertheless, the persons who saw the framework in advance only shortly referred to it in some of their answers. Consequently, it seems that whether the interviewees saw the framework before or after the discussion, was of minimal significance. Moreover, the definition of a strategic alliance or its success in this study was not given to the interviewees. Instead, they had to define the success, elements of success and the successful management of an alliance themselves.

As an employee of HP Finland the researcher had a possibility to receive highly confidential and strategic information about the HP-NTC strategic alliance during the interviews. Except the pilot interview, all interviewees were advised in the beginning of the discussion that despite being an HP Finland employee, the

researcher intended to study the subject objectively and in strict confidence. However, it was obvious during some interviews that the researcher was not considered as an unbiased consultant but rather a member of the opposite party. However, the atmosphere during the interviews was always very pleasant, open and cooperative.

Although the best way to study a process is to undertake a longitudinal case study that tracks the alliance process from beginning to end, there also exists a well-known limitation - respondents' poor recall of the history of the situation (Yin 1989, 91). The case study about the HP-NTC strategic alliance tracks the alliance history from the moments preceding the birth of the alliance until the present situation in 1997. Nevertheless, after three years from the official birth of the alliance, the problematic issues of the pre-alliance and development stages might not seem as problematic anymore as they were in reality or vice versa. In the present study, this limitation was reduced by corroborating interview data with information from other sources such as documentary evidence.

3.3.3 Observation and Informal Interaction

As earlier mentioned, the researcher is an employee of HP Finland and thus has been able to observe the research phenomenon for a longer period of time. The HP's part of the product involved in the strategic alliance became familiar to the researcher already before the beginning of the research. Furthermore, through the participant observation the researcher has gained access to certain vulnerable issues or sensitive problems of the alliance that would have been otherwise inaccessible to scientific investigation. To avoid the pitfalls of participant observation, the researcher has particularly paid attention to have a bias for neither HP nor NTC organizations.

Moreover, observation was carried out during the field visits to Nokia Telecommunications and Hewlett-Packard France in Grenoble. The environment and the atmosphere of all three organizations have been carefully observed as well as the non-verbal communication of the interviewees. The importance of non-verbal communication is stressed by Patton (1990, 229) as he states that *"it is important that the evaluator-observer does not overlook non-verbal forms of communication"*. This area seemed extremely relevant within the present study in which many of the activities under research were of either interpersonal or relational nature. In practice this meant that the researcher attempted to form a picture of the character of each interviewee in addition to their verbal communication style. Also cultural aspects in both verbal and non-verbal communication have been observed.

A great deal of data would have been missed without informal interaction such as informal discussions and lunches with the alliance people. Especially relevant to the study was the possibility to hear and observe people discussing the topics around the strategic alliance in an open-plan, doorless office. The open-door policy and informality at HP enabled the simple and direct way communication at all levels (Packard 1995, 158-159). Participating in the discussions as a member of the Nokia account team and trying to find a solution to problems such as unpaid invoices was even more rewarding.

3.3.4 *Company Data Verification*

The case study and its results were constantly discussed with Mr. Tuomisto as well as Mr. Moilanen at HP Finland during the whole research process in order to give and receive feedback. Especially Mr. Tuomisto with his long experience in the alliance was helpful in verifying the results to contain factually correct information. However, the anonymity of each interviewee was protected at all

times. Furthermore, the preliminary results were introduced to the steering group of the alliance by Mr. Tuomisto.

The results will be discussed and verified even more thoroughly and widely first in the steering group in August-September 1997. For this purpose, the researcher will prepare a special executive summary of the present study which will serve the present needs of the alliance management best.

3.4 Validity and Reliability

Yin (1989, 40-41) emphasizes the concerns of validity and reliability when designing case study research. Validity means that the empirical study measures precisely the concepts being studied (Uusitalo 1991, 84). The content validity of this study was increased as the interview outline was designed based on the theoretical framework of the present study. Moreover, the interview outline was tested and reviewed in a pilot interview which influenced positively the clarity and order of the questions.

In order to assure the construct validity of this study, multiple sources of evidence were used. Different data sources such as interviews, documentation, relevant archival records and observation were triangulated in order to validate the results of this study. Possible contrary evidence was sought by interviewing nine managers about the same issues. Also, two shorter interviews with operational staff at HP France further add to the construct validity of this research. Another action enhancing the accuracy of the case study was that the draft case study report was reviewed by Mr. Tuomisto, Nokia Global Account Manager at HP Finland. His knowledge about the research topic was wide enough to make corrections to the report, which in turn increased the construct validity of this study (Yin 1989, 145).

On the other hand, reliability is verified by the consistency in measurement and the reproducibility of the case study (Yin 1989, 45). For this purpose, a chain of evidence was maintained by creating a case study data base which contains all the documents, letters, e-mail, faxes, interview tapes, transcribed interviews, field notes and reports concerning this study. This enables the repeating of the procedures and arriving at the same result as the researcher (Yin 1989, 102). Moreover, the same individual both collected and analyzed the data, which resulted in increased reliability (Kirk & Miller 1987, 52).

3.5 Data Analysis

The data analysis began already during the data collection thus allowing a continuous iteration process. The field notes during the interviews as well as thoughts during other times of the research were written down. As mentioned earlier, the eleven interview tapes were transcribed word by word and then printed out for analysis. As the interview followed a standardized set of questions, it was relatively easy to group the answers according to the framework of the study, i.e. the business and interpersonal activities. However, certain concepts such as "trust", "communication" and "commitment" were discussed many times during the interview and therefore they had to be marked in the text for easier linkage.

The analysis follows the structure of the framework for the present study and plenty of quotations from the interviews are offered for further consideration. In the following chapter, the findings from the case study data base is described and interpreted in detail.

4. CASE HEWLETT-PACKARD AND NOKIA TELECOMMUNICATIONS

This chapter will introduce and analyze the empirical findings of the interviews and other data sources included in this study. First, the background and history of the HP-NTC strategic alliance is presented. In Section 4.2 the opinions of the interviewees about the definition of the strategic alliance and success will be analyzed. Furthermore, Section 4.3 will discuss the life cycle and the stages of the alliance process in this specific. Finally, Section 4.4 comprises an analysis of both the business and interpersonal activities of the alliance process which have been undertaken in this alliance.

4.1 Background and History of HP-NTC Strategic Alliance

In this section, both companies involved in the strategic alliance are first presented. Then the early moments of emerging strategic alliance are described.

4.1.1 Overview of Hewlett-Packard Company

Hewlett-Packard Company is a global manufacturer of computing, communications and measurement products and services recognized for excellence in quality and support. HP has 112,800 employees in more than 120 countries and had revenue of USD 38.4 billion in its 1996 fiscal year (Measure, 1997). HP has three major business organizations: Computer Organization, Measurement Systems Organization and Test and Measurement Organization. Field activities are organized into Geographic Operations, comprising three areas: Europe/Middle East/Africa, Asia Pacific and Americas. Under these areas operate the regional (such as Nordic area) and country organizations (such as HP Finland).

Within the three major organizations, the company's primary fields of interest are organized into nine product-related businesses. Each product group, on the other

hand, represents a portfolio of related businesses and is responsible for directing and co-ordinating the activities of its divisions and operations. A business unit is typically a subset of a group, concentrating on a single business. While the entities within a business unit may be geographically dispersed, they are linked by a common strategy designed to offer customers fully integrated HP solutions. Finally, HP divisions have world-wide product-line responsibility for their respective product lines.

Since HP was founded for more than fifty years ago, telecommunication industries around the world have used HP's electronic test and measurement equipment to help build and operate reliable networks. When telecommunications companies started using computers to manage their networks, they called on HP's broad experience in computing and telecommunications. Today, HP is one of the leading suppliers of computer systems as well as test and measurement instrumentation in the telecommunications industry, serving equipment manufacturers, telecom operators and service providers including AT&T, British Telecom, Deutsche Telekom, L.M. Ericsson, Northern Telecom and Nokia.

To increase its focus on this fast-growing and rapidly changing market, HP in 1991 formed a world-wide Telecommunications Systems Business Unit (TSBU). Its main objective was to align HP's telecommunications strategy, products, sales, consulting and services to better serve the needs of telecommunications-equipment vendors, operators and service providers. Moreover, HP believed that strategic relationships are essential to meet the complex needs of today's information-intensive businesses as they move into the future.

One area in which HP is continuing to invest is intelligent-network (IN) platforms. IN refers to technology that allows a telecommunications company or its agents to create, deploy, operate and modify telecommunications services for its subscribers quickly and economically. IN services, including Freephone, Premium Rate,

Virtual Private Networks and other services are expected to become more widespread as customer demand intensifies. London-based industry consultant firm Ovum Ltd. estimated in 1994 the annual expenditure on IN equipment in Europe alone to reach five billion USD by the year 2000 (Kurvinen, 1994).

4.1.2 Overview of Nokia

Nokia is a leading international telecommunications company. The Group employs 31,700 people in 45 countries and its net sales in 1996 totalled FIM 39.3 billion (Nokia annual report, 1996). Nokia's main focus is on the key growth areas of wireline/wireless telecommunications. The Group runs global R&D programs on audio-visual signal/data processing and communications, third-generation wireless systems as well as integrated, multiservice network solutions. Further, Nokia is the world's second largest manufacturer of mobile phones and a leading supplier of digital cellular networks. Nokia also supplies advanced transmission systems and access networks, multimedia equipment, satellite and cable receivers and other telecom related products.

Nokia Telecommunications develops and manufactures infrastructure equipment and systems for cellular and fixed networks. It is the world's second largest supplier of GSM/DCS networks and a market leader in mobile data infrastructure. Moreover, Nokia Telecommunications supplies advanced transmission and switching solutions to the fast growing segment of access networks. Many operators have begun to deploy IN (Intelligent Networks) solutions to enhance the creation, differentiation and delivery of new services for their customers. NTC's IN solution offers a possibility both for fixed and mobile networks and is developed based on HP's platform. The technical features of the IN solution are presented more precisely in Appendix 4.

4.1.3 *Towards the Alliance*

HP started to search for a strategic partner as early as they received signals from their customers reporting the necessity of HP having a telecommunications partner. This happened some time in 1991. Naturally, the end customers of HP's telecommunication products were the operators. The important question was how to take the product to the end customer and even more precisely, would HP be capable of doing it by themselves. There was a feeling that they would need an intermediary and therefore a road to follow was set up: to build an alliance with so called NEP (Network Equipment Provider). As a major player in the computer markets, HP's initial instinct was probably to go to the first category NEPs, the major players in the telecommunications market, not to NTC which was considered a second category NEP. For instance AT&T, Alcatel, Ericsson or Siemens were looked upon as the giants of the telecommunications markets.

HP management understood that at that time the first category NEPs would be too large for them to operate with. Thus, the pre-targeting of the category of the NEPs was consciously done. NTC was highly ranked on the second category NEPs list because of its characteristics such as the ability to innovate and potential to grow. Besides, NTC was regarded as a very promising, dynamic and fast firm as well as complementary in many ways to HP. In spite of that, it seems that the final choice of the partner was not totally a strategic but rather an accidental choice. As a manager from HP France expressed:

"I don't think it was a strategic, deliberate choice. It was by default..."

At that time HP's IN (Intelligent Network) products were more just marketing concepts about the possibilities of those products. However, HP management was very eager and committed to focus on the telecommunications area. Moreover, it could be claimed that a single person had a relatively powerful influence on the

choice of the second category NEP. A Finnish HP sales representative who had been formerly employed by Nokia and therefore knew Nokia very well, had excellent contacts with the Nokia people. In 1991 his customer area was Nokia and he together with Mr. Tuomisto were then able to create another push factor for the decision about the possible alliance partner.

Despite all the enthusiasm NTC was not interested in HP's IN products. Hence HP turned directly to an enduser, a Finnish teleoperator which considered HP's strategic thinking excellent. This way HP could deliver alone the first pilot technology to its enduser. Still HP was trying to approach NTC and to push their technology to be part of the NTC solution. NTC refused.

The history of the early phases on the Nokia side explains the rest of the first steps towards the strategic alliance. At the same time as HP had discovered it needed an intermediary to sell the IN products to the end users, NTC had a project with Tandem, a large U.S. based company providing NTC with platform technology. In spite of that, they were also looking for a new kind of approach for the open IN environment which would not be as expensive and large as the Tandem version.

The discussions inside NTC started in 1991 after they had received signals from their customers that they should consider some other solution, maybe with HP. Various calculations were made and the final result was the decision to start looking after a partner on the computer side with a very good reputation in open UNIX environment. As a new customer project came up, HP suggested NTC that they should co-operate. Instead of accepting the proposal, NTC continued with Tandem and lost the case to Ericsson. So did HP as well. This incident finally led to the maturation of the prevailing situation on the both sides. NTC started internal negotiations about how to proceed in the future and made a strategic decision to start discussions about possible alliance with HP. This confirms that a

primary push factor for the strategic alliance were the business opportunities. A manager from HP France stated:

“I think the two partners were driven into the alliance by deals which is very different from looking at it from a strategy point of view. ... this explains a lot of the difficulties later on.”

Another remarkable factor in the choice of the partner company was the previous links between HP and NTC in other product areas. The companies assumed to know each other relatively well having done business together for many years. For instance Mr. Matti Alahuhta, the President of Nokia Telecommunications, and Mr. Wim Roelandts, the Vice President and General Manager of Computer Systems Organization at Hewlett-Packard, considered the organizational cultures of the two companies so similar that there would naturally exist a good basis for a long-term cooperation (Uotinen 1994).

This assumption might have led the management to a false feeling of security and smoothness in the strategic alliance. Accordingly, the natural friction which occurs in every strategic alliance, seemed extremely severe to the management of both companies.

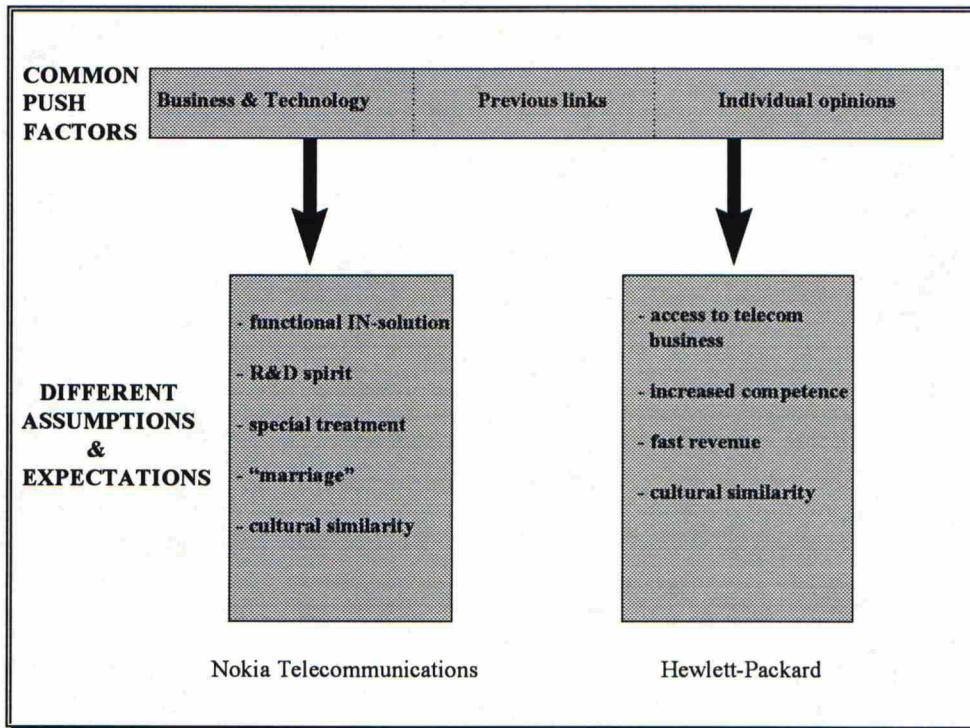
As a conclusion, it seems that the factors leading HP and NTC to the strategic alliance have been quite similar. Firstly, the primary push factor for both companies was clearly the potential business to be captured. However, alliances should not be alliances of convenience, entered into just because the opportunity arose (Forrest 1992, 27). Secondly, individuals played an extensive role in the building up the relationship. Stafford (1994, 69) warns of this kind informal

agreements made by the top managers without careful attention to how appropriate the partner match may be. Further, this is supported by Forrest (1992, 27) as she states that *“the alliance itself must be the most important element and must supersede personal friendships”*.

Thirdly, HP and NTC had had a long buyer-supplier relationship in other product areas from which they both possessed good memories. As Parkhe (1993, 16) comments on the partners' cooperative history: *“The better the match between expectations and past outcomes, the more confident a firm can be in believing that the partner will follow through on its current promises”*. In this case, the partners had a huge amount of confidence and belief in each other, which was a positive phenomenon on one hand.

On the other hand, the optimism was a negative phenomenon as well. From the push factors both companies created their own, individual assumptions and expectations for the future alliance. Yet, the assumptions and expectations were not always complementary to each other which in long run has created conflicts. Though there must have been an exchange of expectations during the early phases of the alliance, the enthusiastic atmosphere and good spirit described by many researchers (e.g. Bleeke & Ernst 1995, Kanter 1994, Spekman et al. 1996), and the top management will of both companies made the differing expectations invisible. Figure 10 illustrates the push factors as well the assumptions and expectations of the companies before entering into an alliance.

Figure 10: Push Factors Leading to Different Assumptions and Expectations



The different assumptions and expectations portrayed in the previous figure were the foundation on which the alliance was built. It is relatively easy to understand the later disappointments in the light of these factors. The assumptions and expectations have greatly affected all the alliance stages as well as business and interpersonal activities, which will be discussed more closely in the following sections.

4.2 Understanding the Definition of Strategic Alliance and Success

One of the basic differences to be discovered when analyzing the data, was the interviewees' understanding of the definition of the strategic alliance as such. Even though the interview outline did not include any questions about the definition of a

strategic alliance, this question was raised by the managers many times. As previously explained, the differing assumptions and expectations have created inconsistency with the definition. The managers were quite unanimous what strategic alliance is or should be but they were not sure if their definition would apply for this alliance. It seems that this misunderstanding about the scope and the aim of the alliance has existed already since the beginning. A manager from NTC described the definition and the possible difference between the companies as follows:

“Strategic alliance means the involvement of both parties to the common target. Both understand in a similar way that the relationship is a strategic alliance. Not only one party and the other party would go somewhere else.”

On the other hand, another manager from NTC argued:

“My personal opinion is that this strategic alliance is not a strategic alliance. Actually it has been harmful for NTC and HP relationship as it has been put in a special category to be a strategic alliance. I feel we are not handled as customers anymore. And the customer aspect has to be remembered all the time.”

Generally, NTC managers expressed their frustration when discussing the scope and the aim of the alliance. They clearly articulated that their expectations were not in line with HP's expectations. They felt that the strategic intent was missing and the alliance did not fulfil their needs. Their French counterparts were not so concerned about this matter. Nevertheless, the Finnish HP managers believed that there was a misunderstanding among the middle management involved. The following comment from a HP France manager clearly explains the difference in the overall opinions of the two companies:

“I don't know whether we want to call this relationship an alliance. It's a close relationship but it's still a supplier-consumer relationship... I think it's definitely a strategic relationship... So I think in a way we are not married but there is a close

binding just because Nokia is a big customer, just because supplying an important piece of functionality to them.”

As stated in Chapter 3, an alliance is often compared to a marriage (Kanter 1994). This comparison often appeared in the interviews as well. The extreme views between some managers about the marriage between HP and NTC were clearly articulated. An HP France manager described NTC top management attitudes as follows:

“They [NTC top management] said: from now on we are married. There’s no question of that. We’re depending upon HP and therefore there’s no question about separation anymore.”

Another manager from NTC used the analogy of marriage even more vividly:

“You can compare an alliance to a marriage. First you are attracted to the partner, then you have a honeymoon and then finally you start arguing. What you should remember is that you need to take care of the relationship.”

Similarly, a manager from HP Finland pointed out the move towards more serious commitment by stating:

“We are now entering the mature phase of the relationship. So far the relationship was courting. Now they [top management] say we are married and there is no question that we would not depend on each other for our lives.”

It seems that NTC expected a closer relationship in which both partners would contribute ideas and investments. However, an HP France manager described entering into the alliance in the following way:

“I don’t think we fell in love with Nokia. Certainly not in the very beginning. I feel they were more in love with us.”

In other words, the marriage of the two companies was clear right from the beginning of the negotiations but the reasons for the marriage were slightly different. Yet, the different motives for the marriage are not condemnable as such. It is the false message that either partner might be sending to the other which leads to problems and prevents the alliance from succeeding. This happened in HP-NTC strategic alliance.

However, the defining the success of the strategic alliance was relatively easy for all the managers to agree. A manager from NTC observed:

“A successful strategic alliance should generate new business and enhance the processes of both parties. It should be a win-win situation so that both parties are gaining some benefits when they co-operate. If that is not happening, it is not an alliance. Then it is a business relationship where there is a buyer and a seller.”

Moreover, another NTC manager commented:

“For all cooperation one element of success is that both parties in an alliance or cooperation should see what the value added for the cooperation is, why we are together more than separately.”

Managers in both companies clearly saw the significance of the win-win situation, value added and economic benefits to be the most important measures of success. However, some “softer” and human elements like learning were mentioned, too.

As a conclusion for this section, the difference in views about the definition and meaning of the strategic alliance has created problems like lack of trust and feeling of abuse. Therefore, the meaning and scope of the alliance is one of the most important issues to be mutually evaluated and explained to all levels of the alliance personnel and management.

4.3 Alliance Stages

As thoroughly presented in Chapter 3, the alliance goes through distinguishable alliance stages which are illustrated in the process framework of this study in Figure 8. Indeed, also the interviewees touched the stages the alliance goes through in their responses. A manager from NTC observed:

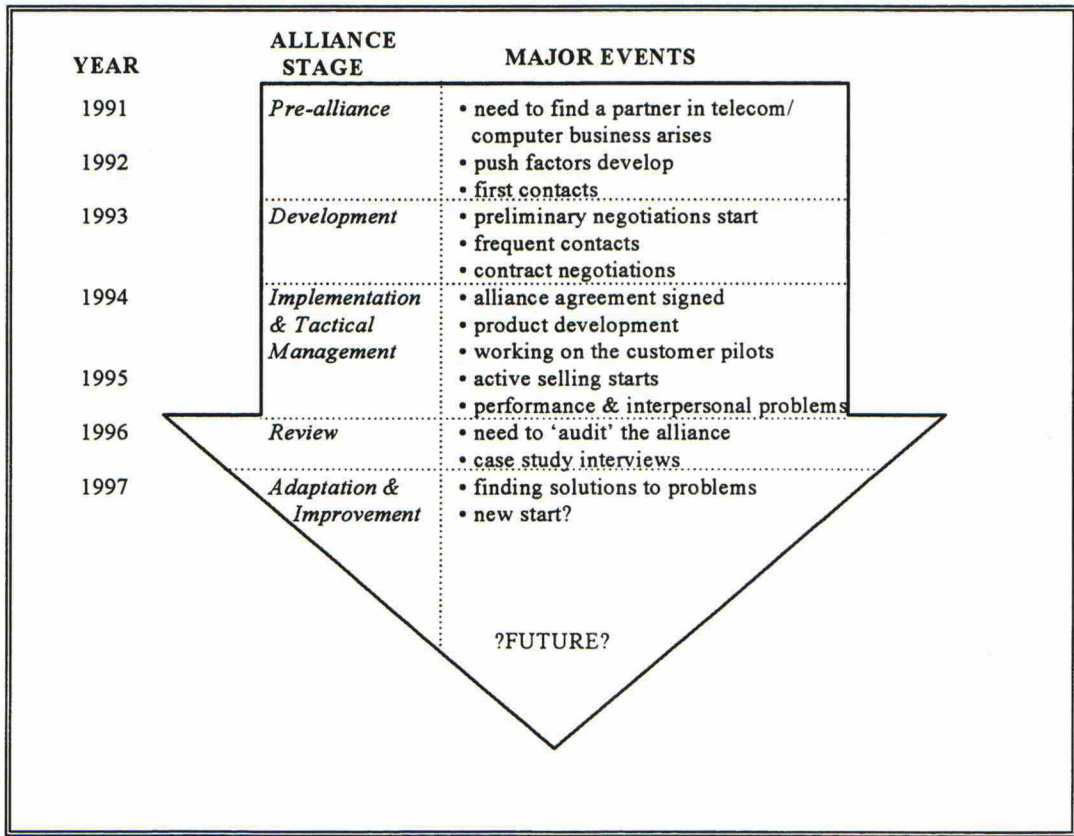
“Understanding the alliance process and the stages means understanding NTC’s product process and putting that in line with HP’s product process. This is a very vital issue. The visibility to each others product process, understanding the phases and what the risks are is critical for the success of the alliance.”

The previous comment describes exactly what the earlier studies have emphasized. For instance Bronder & Pritzl (1992) and more lately Spekman et al. (1996) stress the understanding of the development process and its contribution to the alliance success.

The relationship between HP and Nokia stretches back more than 20 years. The close relationship, i.e. the time of the strategic alliance which started with preliminary negotiations around 1992, was preceded by a long buyer-supplier relationship. Now both partners have realized how difficult it is to establish the fundamental principles for working together in such a close relationship as a strategic alliance. The HP-NTC strategic alliance has travelled through pre-alliance and development stages and has now reached the more mature stages of the alliance. After spending couple of years in the implementation and tactical management stage, it is now moving towards the review stage which should bring the alliance back to implementation and tactical management stage after passing

the adaptation and improvement stage. Therefore, HP-NTC strategic alliance is now in the circle of rebuilding (see Figure 8). The stages of the HP-NTC strategic alliance and the major events presented in Section 4.1.3 are presented in Figure 11 in chronological order.

Figure11: Alliance Stages and Major Events of HP-NTC Strategic Alliance



During the pre-alliance and development stages everything proceeded quite smoothly and despite some minor disagreements the feeling was happy and positive. However, the business situations as well as many people involved in the alliance changed and the atmosphere became more realistic and even sceptic. A manager from NTC commented:

“All our partnerships are following the same pattern: you have a very enthusiastic start. At a certain point of time all the relationships and partnerships get in difficulties. Then it would be inappropriate to waste all the lessons what we have learnt and say: this can't be developed further. We are now entering the business phase and we need to add more elements into the partnership.”

What used to be a good and functional buyer-supplier relationship, has slowly turned out to be a relationship sometimes full of problems and difficulties. According to Spekman et al. (1996, 348) the early stages of the alliance are often 'alive' with high energy, great hope and enthusiasm and excitement about the strategic dream and all it potentially can bring. Also Kanter (1994, 99) states that formation of alliances is largely based upon hopes, dreams and optimistic ambition of their creators. The previous comment of the NTC manager confirms that this was true for the HP-NTC alliance as well.

Nevertheless, no alliance can totally avoid problems and pitfalls. Many companies, however, make a fundamental error of believing that their alliance is something extraordinary and will not experience any trouble at all (Shaughnessy 1995, 11). Some of the managers in the HP-NTC alliance made this mistake. Yet, the problems were anticipated by some managers already from the beginning. Still, there were no extensive crises during the development stage.

Only during the implementation and management stage did the performance and interpersonal problems arise. The issues that came up probably just indicated the need for thorough review of the alliance and the need to move to the adaptation and improvement stage. Managers from both NTC and HP Finland precisely articulated their concern about the present state of the alliance:

“Something has to be done. I believe and trust that this relationship can improve a bit at least if I have more time to work for this alliance... It's one issue on this end, too little time has been put on the alliance relationship.”

“This strategic alliance is successful only partly because even though it is working and going on, people are not too happy. To achieve the point where we can make people happy, I would say we have to review the goals and then maybe reform the processes and see whether the processes are in place and correct.”

Generally, the feeling about the future is positive. It is well understood that a strategic alliance always experiences difficulties and more emphasis should be put in to the management of the present problems. Some managers also noted that “the expectations were wrongly set to start with” and that “they have learnt a lot”. It is beneficial to the further development of the alliance to openly admit that mistakes have been made. Also, it is a sign of attempting to enhance the spirit of the alliance and after reviewing the alliance to restart the alliance. The more precise means of completing the circle of rebuilding successfully will be discussed in Chapter 5.

4.4 Implementation of Business Activities Enhancing Success

As stated in Chapter 3, during each alliance stage it is of vital importance to take certain business activities into consideration in order to succeed with a strategic alliance. In this section the business activities listed in Table 4 and their execution in the HP-NTC strategic alliance are presented. The order of the presentation is based on the alliance stages and thus also the interview outline.

4.4.1 Overall Situational Analysis

One of the basic business activities during the pre-alliance stage is an overall situational analysis. It can be argued that this analysis was carried out in both companies during the pre-alliance stage which lasted quite a long time, more than a year starting in 1991. During that time, the future partners went on with their

ordinary business deals together and separately but at the same time, they looked forward. It seems that NTC drew up more precise calculations about the possibilities ahead of them. Based on these calculations, a decision for open UNIX environment was made. Nevertheless, HP was more allured by the push factors.

On the other hand, as already described in Section 4.1, the overall situational analysis was not a profound one in either company. A manager from HP France explained:

"I think we have been pulled into this and there was very little or no preparation at all... nobody had any clue what we wanted. I think it was first responding to the deals, trying to win them and then build the case rather than reverse."

The weak overall situational analysis is explained by the strong push factors portrayed in Figure x. In fact, the push factors were more powerful than any analysis could have been. Besides, there was a strong management will in both companies for this kind of cooperation and many people in both organizations got carried away with the idea of something so spectacular as the possible strategic alliance. Some managers from the middle-management, however, were suspicious. The statement below apparently shows a failure in the overall situational analysis. A manager from NTC told:

"The top management had a common understanding that this is the only way to have this business: to go there together. That was a reason that we could start the alliance with such a weak business analysis. It was so strongly supported on the top management level that nobody from this level [middle-management] had to show any figures to speak for this alliance."

Therefore, an overall situational analysis which is a major tool to evaluate especially the long-range business aspects such as assessment of strategic costs, should be an absolute starting point for any alliance activity. This is supported by

Stiles (1992, 28) who reported in her study that a thorough initial screening process was seen as one of the crucial steps of strategic alliance formation. In addition, Lorange et al. (1992, 12) present valuable information about 'initial analytical phase' during which broad analytical considerations must be handled.

4.4.2 Evaluation of Internal Potential and Value Creation

The second business activity to look at during the pre-alliance stage is the evaluation of internal potential and value creation. The two companies created somewhat different starting points for the alliance. NTC probably was more aware of their capabilities than HP of their own. An HP France manager remarked:

"My feeling is that we [HP France] maybe underestimated the difficulty we had internally to build the SCP [the product]. We also underestimated the difficulty Nokia would have in selling them... I think we probably have not done a very good job in defining all our strengths and weaknesses in general and specifically in this alliance."

Another HP France manager pointed out the same dilemma:

"Perhaps we had a kind of HP mentality: we are the big guy, we know what we are talking about. However, in this field [Intelligent Networks] I think they [NTC] knew more than we did."

Furthermore, a manager from NTC supported the previous comments:

"I think there was some kind of overselling to us in the beginning. That's not working in the partnership at all. You have to be very honest of where you are."

The previous comments explain some of the later disappointments that NTC had concerning for instance product functionality and the timetable. Again, the expectations based on wrong assumptions did not help in building the relationship

later on. Shaughnessy (1995, 17) interestingly describes how unrealistic expectations grow from the inner purpose of one or two manager to sell the vision of collaborative venture to everybody else. He further states that a partner can be too enthusiastic and make more promises that it is possible to fulfil. Therefore, an identification of own strategic cooperation potential should generate knowledge about own strengths and weaknesses as well as internal trends in the company (Bronder & Pritzl 1992, 414). Moreover, self-analysis helps in evaluating the partner company (Kanter 1994, 99).

Had both HP and NTC done a more profound analysis of their own internal potential, they could have discovered the possible difficulties like time- and competence limits already earlier. Perhaps the later disagreements concerning these issues and the eroding of trust could have been avoided this way.

4.4.3 Initial Partner Search and Screening

The third business activity during the pre-alliance stage is initial partner search and screening. As already mentioned, the partners more or less drifted towards each others due to the push factors. Previous links and individual opinions made the two companies more attractive and appealing to each other than the other possible companies. A manager from NTC explained:

“We were discussing with some other computer companies but it was not serious. It was more or less to get a feeling to be in line with HP.”

On HP side the initial partner screening was confined also by the unwillingness of the possible other partners. A manager from HP France evaluated this as follows:

“We thought that we need to have a partner in this field [Intelligent Networks] or many more partners in addition to the one we had that time. But we were not able to

convince them [other possible partners] that it was a good opportunity... I think we did not reach the objective because we did not or we were not able to develop enough our relationships with others.”

The inability to catch the bigger fish in the sea of the intelligent networks might explain HP's reluctance to commit itself to this specific alliance. They were actually forced to marry NTC instead of being able to allure many and maybe even bigger partners. However, it must be stressed that there were actually two different entities of HP involved. A manager from HP Finland described the meaning of this alliance to HP Finland as a field:

“...entering into a strategic alliance is key for us to become a strategically preferred partner with Nokia. As Nokia's business is growing at 45-50 per cent per year, then also we can take a bigger share of the business in the coming years as well.”

As the above comment shows, HP Finland clearly saw the huge potential of NTC as an alliance partner to them. However, HP France was not as convinced as HP Finland about the potential NTC possessed. Furthermore, it is probable that the overselling mentioned already before is due to the ignorance of the capabilities HP France had at that time. As HP Finland was pushing the idea heavily in order to create sales for themselves, they made such promises which were then very hard to keep in the alliance. The twofold structure of HP has created many problems between all three parties involved in the alliance. The communication from HP France and HP Finland towards NTC has not been in line and sometimes messages have been even contradictory. A manager from NTC observed:

“That was actually one of the major disappointments in the beginning. HP gave us a completely different picture of the status of the product development which was the cornerstone of the IN program... It was much bigger effort than it was originally estimated.”

Lewis (1990, 204-206) calls the initial partner search and screening 'scanning'. He observes that "*often two firms know they share a potential opportunity but must first explore their mutual abilities*" (Lewis 1990, 204-206). He mentions the scanning process of Northern Telecom and Apple Computer, which took several months studies of each other's technology to find the best combination. Moreover, Kanter (1994, 99) points out that "*distance lends enchantment*". This means that the managers can be blinded by the infatuation because they see what they want to see and believe what they want to believe as they do not know each other well enough. The exploration and scanning in HP-NTC strategic alliance was rather superficial. The managers largely trusted their intuition and present knowledge about the partner companies. However, if mistakes are made in the initial partner screening and selection, they could be corrected with a profound partner analysis and selection which will be discussed next.

4.4.4 Partner Analysis, Selection and Strategic Match

During the development stage, the partner analysis and selection is finalized. The strategic match is also verified and the companies start to prepare for the contract negotiations. As previously mentioned, the partner analysis and selection in this case happened without a real trial and selection. Both parties knew very early that they had found a suitable partner for themselves for one reason or another. In other words, the strategic match seemed self-evident. Both companies were very committed to start building the new and unknown IN business, to take the risk of moving into a new product area.

In HP's eyes NTC seemed to be an excellent partner for new technology: small enough and thus also flexible, a fast moving and growing company with centralized decision making. For NTC instead, HP seemed to be big enough but also loyal and committed to the telecommunications business and had right competencies and intent. Both were engineering companies but both also finally

recognized the need for a partner with complementary skills. In other words, it cannot be argued that there would not be a strategic match in this case.

Surprisingly, it seems that at this stage the strategic match was not discussed utterly and openly enough. This came up later in many different areas of the strategic alliance. To mention an example of this, NTC felt that HP's way of calculating investments and profit was strange and surprising for such a strategic, long-term partnership as this alliance. A NTC manager told:

"HP has still the American way of calculating revenue. They [HP] make a long-term strategic alliance which means investment but it has to be profitable within three months. Nobody ever said that but I felt that it created confusion even among the HP product lines."

Similarly, a manager from HP France mentioned this issue:

"I believe we wanted something quick and dirty, as fast as we can. I think NTC understood, or is it just a matter of nature of Finnish people, that it might be difficult but they were prepared to put the time it would take and go for it."

Kanter (1994, 102) warns that many relationships dissolve too soon when disputes over quick returns arise. Moreover, Stafford (1994, 72) points out the trap of assessing partnerships as if they were internal corporate divisions creating bottom line profits, cash flow and market share. This can easily reflect a short-term orientation of the company and endanger the possibility of creating a successful long-term cooperation. Also, understanding the other possible benefits of the partnership such as learning might become vague (Stafford 1994, 72).

The above mentioned problem of expecting too much too soon was probably an indication of a larger problem area. A remarkable weakness during the development stage was the lacking communication about each other's businesses.

Many interviewees (8/11) pointed out that it would have been extremely important to get insight in for example each others' way of conducting business in general, business cycles and future business plans. HP is a major player in the computer business which moves faster than telecom business which in turn is NTC's playground. HP is used to collecting the revenue faster whereas NTC knew that it would take a longer time to penetrate into an infrastructure business like telecommunications with a new, unfinished product. A NTC manager described the discrepancy as follows:

"We [NTC and HP] have had a discussion about what is the value added of each partner. I think it is an indication of misunderstanding the business: what is required and what is not. We think that we also taught, educated HP guys to work in the telecom business."

Likewise, Spekman et al. (1995, 7) point out that when the expectations differ or are unrealistic, or when allies do not agree on the level of value each commits to or takes from the relationship, problems arise. Another NTC manager expressed his opinion about the problem related to understanding the business in the following way:

"I think we should have defined the strategy deeper to understand what both parties are doing in the future... Also, we were not flexible enough during the [alliance] process in understanding how this whole business evolves... This is something that was not so openly discussed."

The difficulty of understanding each other's businesses puzzled also HP managers. A manager from HP France described the situation:

"I think for the business environment there is the one which is faced by NTC in front of their customers and then we have our view of the same business... We both have to make progress: NTC has to understand better what computer business is and HP has to

understand better the business environment where NTC is talking to the operators and making deals with them.”

A manager from HP Finland went even further in his analysis:

“Now people have realized how the industry is behaving and what the basic requirements are. But adapting those ideas into our own internal processes has been very slow. It has been very hard for our managers to convince the top management that we need to make some changes in our investments.”

The previous comments illustrate that although HP has a wide knowledge of telecommunications industry, it has not been sufficient. This kind of insufficient knowledge and unrealistic aspirations of the industry where the alliance is operating, have been regarded as one reason for ill-conceived cooperation (Harrigan 1986, 12). Moreover, HP people seemed to be bothered not to have direct customer contacts. This has probably diminished the amount of commitment it shows to the alliance. Therefore, HP should better understand and employ the great opportunity to learn from NTC. This way the success of the alliance can be strengthened.

Furthermore, the later misunderstandings about the scope and the aim of the alliance could have been avoided by discussing the strategic themes more in detail during the development stage. A NTC manager expressed his feelings as follows:

“I have always wanted to ask from HP if they understand what a partnership means because they are not operating in partnership mood. “

The above statement well illustrates the confusion between the partners. As the most profound definitions and principles of this specific strategic alliance have not been discussed and agreed regularly, a wide spectrum of ideas and perceptions take place in the minds of the people involved. Especially as there have been many

changes in the key people in this alliance, the strategic intents could have been more clearly articulated to the new people. An HP Finland manager declared his concern about the issue:

“The people who are now linked to the alliance, do not know the history. I feel very strongly that they do not realize... what are the key elements in establishing and maintaining a strategic alliance.”

On the other hand, also the strategic match and the definition of the alliance have to be reviewed from time to time as the circumstances such as business situation around the alliance change. The reviews should generate open information to all levels working with the alliance and to prevent the confusion of ideas about the purpose of the alliance.

4.4.5 *Building Shared Vision and Values*

Another activity closely linked to the analysis of strategic match is to start building a shared vision, goals, strategies, values, culture and communication tools already during the development stage. However, there is a constant need to build them during the later stages of the alliance as well but the most important ground work should be done during the development stage (Lorange et al. 1992, 12-13; Stafford 1994, 69). It is evident that the shared principles of the alliance have to be in line with the principles of each company. To be able to build anything shared, the strategic match should be as well defined as possible (Bronder & Pritzl 1992, 417). It is of great importance that the people involved in the strategic alliance start listening and talking about for instance the shared vision and their expectations already before the alliance contract is signed (Forrest 1992, 30; Spekman & Salmond 1992, 2). This was not the case in the HP-NTC strategic alliance. A manager from HP France stated:

“It’s just a pity that neither party, neither Nokia nor HP, did take more time to understand what it is that they expect from each other. I think we had maybe some unrealistic expectations from Nokia and Nokia had probably some unrealistic expectations from HP. We were like two people who did not emit on the same wave length.”

The previous comment indicates that the strategic match as well as the visions, goals, values and cultures of the alliance partners were assumed to be consistent with each other and very much alike. A Finnish HP manager further explained the issue:

“Many times it was said that the values are very similar in the companies and the culture as well. Today I disagree with that a little bit. “

Furthermore, a NTC manager described the situation as follows:

“We had discussions about these issues but afterwards I would say that the discussions should have been deeper... When you first look at the visions, they are quite similar. They may look similar but in fact there are different messages inside the visions. The objectives of each company in this area and what the meaning of their vision is should be discussed more carefully.”

In addition, a manager from NTC further analyzed the shared vision:

“We have shared very well the technology visions in the alliance. But sharing the business vision was maybe a little bit poor. “

Similarly, an HP manager confirms the above comment from the HP point of view:

“I do not think that HP and NTC had compatible business vision. It does not mean they were incompatible but they were just separate... NTC was actually trying to build

the product vision... which can be explained by the fact that they were actually in front of the customer.”

Another HP manager pointed out the possible reason for the lack of shared visions:

“I am not sure if we had shared vision or values. Again I think it is because we were far. We were dealing primarily with IN platform group, not with the business units nor the customer. From traditional HP point of view, we were far from the endcustomer.”

Moreover, a possible obstruct for building a shared vision was the changes that have happened in the key personnel. In a long-term strategic alliance the amount of changes that took place in the HP-NTC alliance will automatically create problems such as losing the shared principles, lack of trust and maybe even commitment (Lewis 1990, 282-283; Slowinski 1992, 46). A manager from HP France commented:

“Changing people too often means that the memory of the relationship disappears. In this type of alliance which is going to last a long time, it is important that each party remembers the position they have taken and why they have taken it.”

The above comment is supports Lei & Slocum's (1992, 94) observations as they suggest that the original objectives of the cooperation and the learning are often forgotten as new people move into the alliance.

Some other interviewees also mentioned that not only understanding each others' businesses better but also the business they were doing together, could have helped in building the shared vision more successfully. Yet, it seems that the ability to build shared principles is also largely dependent on the interpersonal activities like trust and understanding. The building of shared principles started

quite successfully in the HP-NTC strategic alliance but after a while it was forgotten and little by little vanished away. The interpersonal issues affecting this development will be discussed more closely in Section 4.4.

Building shared vision and values is not only enough. Another essential ingredient for successful alliance is knowing each others' cultures and building a shared culture. As earlier mentioned this is one of the most challenging tasks during the alliance life cycle (Slowinski 1992, 47; Stafford 1994, 70). It is even more demanding if the companies involved do not form a separate alliance operation such as joint venture. HP-NTC strategic alliance involved no equity and no separate operation. This could be a reason why it has been so difficult to build a shared culture. A manager from HP Finland observed:

"There is not any culture as such. On Nokia side there is one department working on it, on HP side there is one department partially working on it, there's no company as such formed for this alliance. There are just working habits of individuals working part-time for this alliance."

The shared culture grows from the existing organizations' cultures (Slowinski 1992, 46). In the beginning of the cooperation it was widely assumed that the organizational cultures of HP and NTC would be quite similar. Both companies have a very open and innovative culture. Also, neither company is very hierarchical and their ways of managing people is rather similar: both companies give quite a lot of freedom for individuals to complete their jobs. On closer consideration, there might be some differences. An HP Finland manager observed:

"We still have quite big differences. You could say that HP has a real culture. We have real values and procedures that are adapted all over the organization. People really know them and they are working based on them. Therefore you are able to distribute the decision making very low in the organization. Nokia is not yet there. They are

growing so fast. The basic values they try to establish are very common with HP but I think those values are not well adapted by people on the very low level.”

Thus, an explanation for the differences in organizational cultures is largely the size and history of the companies. HP organization is very wide and multinational. It has a long history and its size is five times bigger than the size of NTC. Moreover, NTC is still a Finnish company. A manager from HP France explained the difference as follows:

“One of the major differences between HP and Nokia is that HP is an international company whereas Nokia is a Finnish company which has operations abroad. The boss at Nokia in France is not a French man, he’s a Finn. It really shows a lot.”

Consequently, NTC’s organizational culture and ways of operating seemed very Finnish and ethnocentric to the HP people whereas HP culture was considered to be more geocentric, universal and pluralistic.

Although there are legally only two companies involved, reality has proved the existence of three parties. As previously mentioned, this structure was not yet visible during the pre-alliance stage. But during the development stage it became very clear that HP division and field did not always share the same thoughts and visions. Furthermore, the overall HP values were similarly followed but the management did not actually spend much time on evaluating the possible effects of French versus Finnish culture. At least from NTC’s point of view, the communication, decision making and sharing responsibilities at HP did not seem very consistent. A manager from NTC commented:

“... there were different views: area organization [HP field] wanted to take the responsibility and the global product line [HP division] said to us that they do not have the competence to do it. Total conflict... At HP the area organization is very powerful and quite independent. In Nokia the area organization is supporting global divisions.”

As the previous comment confirms, the structure of the alliance created problems both in organizational as well as cultural terms. Building a shared vision and culture proved to be a difficult task. Stafford (1994, 69) points out the problems of this kind of complex alliance involving interdependent functional units across partners. He urges the alliance managers to pay attention to this matter so that the different units do not lack shared vision and thus undermine overall partnership goals and control. The previous comment of NTC manager also highlights the need for effective and consistent communication which will be discussed next.

4.4.6 Building Shared Communication Tools

An area which is very closely linked to the previous business activity is communication. An effective way of communicating between the alliance partners is always hard to establish (Lewis 1990, 243-247). But in this case, an attempt to send consistent information to NTC called for even more intensive effort. Already quite early in the alliance, the role of HP Finland turned into acting as a middleman between HP France and NTC. A manager from HP Finland explained:

“Also in the beginning it was one of our key roles many times to be a middleman calming down the situation and misunderstandings between the organizations. “

However, this role was not completely understood and supported by NTC management. A manager from NTC criticized the structure of the alliance as follows:

“I have not seen real benefits of the value added from HP Finland in this alliance... Therefore NTC recommended a structure, a new revised contract where we are still keeping together the development and product supply parts in the same contract. We wanted to handle this on division to division level. In other words, we could have

made an agreement directly with HP's division in Grenoble bypassing the local organization. The local organization caused us to break the contract in two pieces: the commercial part is going through HP Finland and development part through HP France in Grenoble."

As previously mentioned, the business generated through this alliance greatly benefits HP Finland. Therefore, it is of their interest to strive the business and look after the alliance. However, though the complexity of the structure has been quite painful, it has also been beneficial as a cultural and relational "cushion". Furthermore, even if the cooperation has not always been so smooth, HP France considered HP Finland to be an essential link in the alliance. This was visible in the following opinion of an HP France manager:

"It is very difficult to involve somebody else from outside [HP Finland] when there is such a strong technical collaborative arrangement. At the same time, if we would not have HP Finland present, we would be very poor because we would not have our presence locally..."

One reason for inconsistent information between the two HP organizations could be the difference between French and Finnish cultures. This issue was not enough taken into consideration during the development stage of the alliance. A manager from NTC told:

"We thought we were working with an American company. But then we suddenly started to realize that we were working with a French company."

Vice versa, a manager from HP France observed:

"I think they are very Finnish. They are very business minded and tough. "

Furthermore, a manager from HP Finland described the two different cultures in the following way:

“One slogan is misunderstanding of words, meanings, definitions and maybe sometimes unwillingness to understand. This is very much because of cultural differences in terms of cultures as countries and nations rather than companies. Not HP France but the French as such are different than Finnish people. I’m not saying better or worse but they are different. Their way of working, managing and committing is different than that of Finnish people.”

Moreover, a French HP manager expressed his idea of the two cultures and communication pertinently:

“I think the Finns do not talk enough but the French do not listen enough. Both sides have something to learn.”

Another possible factor creating ‘misunderstandings’ in the communication could have been the bottlenecks inside the organizations. The interviewees described that there had been people in the alliance team who were not able to share the needed information fast and effectively enough. Also, the structure of NTC organization made communication quite complex. The people that were heavily involved in the alliance and who were supposed to be interface between NTC’s business unit and HP, formed an own group called INP (Intelligent Network Platforms). However, they did not have direct contact with the endcustomers which might have made the establishment of their own identity relatively difficult. It seems that there was internal rivalry and communication gap inside the NTC organization as the business units contacted HP directly bypassing the INP group. According to the HP interviewees, it took a while until they figured out the complexity and sensitivity of the situation.

However, not all misunderstandings and tensions in the communication can be attributed to either organizational or national cultures. The communication style of each individual affects the quality and understanding of communication. The interviewees mentioned that some individuals in the alliance team had a special way of communicating. A manager from HP France described events in a negotiation situation as follows:

“Mr. X comes in full of adrenaline and starts telling about all the negative things. Then he calms down and becomes rational... So you just have to forget the beginning and listen to the things he tells after that.”

Lewis (1990, 246) suggests that attitudes affect the communications. He continues: “*For most people it is difficult to remain open and to feel constructive with someone who is stubborn, makes contemptuous remarks, tries to score points or ascribes blame*”. Therefore, it is extremely important that each individual in the alliance team pays attention to the way he/she communicates. Of course, after people get to know each other, they also come to know the individual differences in communication styles. Nevertheless, before that happens, a whole alliance can be jeopardized.

Briefly, the most important matter in the context of cross-cultural and cross-organizational communication is that people become more aware of what other cultures or organizations may not understand about their own culture and behaviour (Mead 1990, 9). If the alliance people of HP-NTC strategic alliance become conscious of their own cultural traits, they can become better understood and are better able to understand others. Therefore, the differences across Finnish and French as well as across HP and NTC ways of communication should not be considered as stresses but also as an opportunity to learn and develop understanding and tolerance (Mead 1990, 9).

Another aspect in the area of communication is the shared tools of communication which have been agreed together. For instance, use of e-mail or teleconference as a tool to manage the alliance must be clear to all alliance team members. These ways of communication and the information sources should be comfortable to use and available to everyone in the alliance team. This means that the responsibilities of the alliance team members are clear and a 'resource map' is available stating the name, responsibility and contact information of the different alliance team members. With an updated version of the resource map alliance people know exactly the right persons to contact whenever an issue or a problem comes up.

Often the infrastructure of the alliance companies, however, is not so uniform. For instance HP and NTC used different software to produce information and it was extremely hard to convert the information back and forth. Also, as HP France was geographically remote from the other two parties, the minutes of the meetings held either on the phone or in one of the three premises, became extremely important. The minutes were sent to the people involved via e-mail, and thus they could recall the action points and responsibilities agreed in the meeting.

The data presented in this section are good example of how generalization of assumptions and feelings can be dangerous in the management of a strategic alliance. Moreover, cultural differences often emerge as a surprise and it requires a lot of communication to work them out (Kanter 1994, 104). Furthermore, if there are barriers to open communication, the situation gets even worse. Noticing the barriers of communication early enough prevents misunderstandings from expanding and worsening (Lewis 1990, 246). Finally, had the companies put more effort into examining each other more critically, they would have been better prepared to the pitfalls of the implementation and tactical management stage.

4.4.7 *Contract Negotiations and Extensive Detailed Agreement*

The contract negotiations normally start during the development stage and as the extensive detailed agreement is signed, the strategic alliance moves to the implementation and tactical management stage. The contract negotiations of HP-NTC strategic alliance lasted about three months, which one manager from HP considered to be a very short time. The team designing the contract was relatively small, eight people at the most. The time schedule for the contract to be finished was very tough, and people who prepared the contract had to spend day and night for many weeks and weekends with each other. Although the interviewees who had participated the contract negotiations (4/11) described the creating of the contract a heavy task, they also characterized it as a pleasant and a 'fun' time.

The outcome of the contract negotiations was a set of agreements, totally some 280 pages. First, a collaboration agreement formed the framework for all cooperation between HP and NTC. Second, an IN program agreement formed the framework for this specific area of cooperation. Third, agreements for pilot customer projects were designed. Both companies took the drafting of the alliance agreements very seriously. The agreements were very comprehensive but contained mainly technical data with different phases of the R&D process. An NTC manager expressed his feelings about the alliance agreement as follows:

"80 or 90 per cent of the time was spent defining the product which we are together developing. Only ten per cent was for business... We defined the delivery times exactly already in 1993 but the environment has changed so many times that the information was not valid anymore."

Although the agreements between HP and NTC were detailed, they did not take into consideration for instance how the alliance was to be managed on day-to-day basis or defining of built-in renegotiation points to review the agreement on regular basis (Forrest 1992, 32). On the contrary, Lewis (1990, 231) points out

that all issues of concern to either party should be included in an agreement but details of implementation, monitoring, penalties and control should be held to a minimum. A considerable imperfection of the contract was the missing business plan which created conflicts for example with the endcustomer support. For instance Lorange et al. (1992) bring up the importance of a business plan for the success of a strategic alliance by stating that *“it is of utmost importance that both parties identify and agree on how to co-ordinate and adapt their activities that are particularly critical to the alliance.”*

According to Shaughnessy (1995, 15) alliance parties often make it hard for the other party to back out from the strategic alliance. However, he points out the possibility to build a ‘silver bridge’ for a partner to walk out if the relationship is going wrong. The interviewees who had been designing the alliance agreement, did not consider the exit terms to be the key thing in this contract. Yet, they agreed that there were exit terms which were not considered easy from HP’s point of view. An HP manager described them as follows:

“There was a very strong emphasis placed by Nokia on commitment... The IN-program agreement is very clear: you cannot get out before certain things are completed. You could not get out easily... The HP approach would have been to be careful: if it’s unproductive, we do not want to get in there for ten years, no! But telecom is different business and you need to be there... We learnt that.”

Consequently, the nature of different businesses dictated the different needs for the exit terms and long-term commitment. Thus, in this case it was not possible to leave exit terms open or build a ‘silver bridge’ as it would have been too risky and dangerous for the whole business.

A long agreement as such does not seem to be a prerequisite for successful cooperation. As the collaboration agreement and the IN-program agreement expired in the end of 1996, the parties started to draft new contracts. Obviously,

something has been learnt about the previous mistakes as a totally new approach to alliance agreements is now followed. A manager from HP France explained the new way of thinking:

“We do not want 200 pages that nobody ever reads but instead of that, two to three pages that contain the essence of our relationship... It should state the state of the art and an overall umbrella agreement... We would like to have something very simple, realistic and truthful which just states where we are today.... In addition to that, we would have a supplier agreement, a maintenance agreement and a development agreement between the interested parties as separate entities [NTC, HP Finland and HP France]. It's a major change of philosophy from 1993...”

4.4.8 *Coordination*

For instance Bronder & Pritzl (1992, 418) emphasize the advantage of assigning an experienced manager as the co-ordinator for a strategic alliance. Also Spekman et al (1996, 352) stress the importance and centrality of the alliance manager. When the interviewees of this study were asked their opinions of the coordination of the alliance, responses were quite similar at all levels and parties. The clear message from the interviews was that this function had been somewhat neglected at both sides. A former HP France manager stated that

“We went through various phases and we had a fair amount of coordination but not satisfactory, at least within HP... I think coordination is relationship management.”

However, another HP France manager explained the reasons why the role and the meaning of an alliance manager had not always been understood by HP alliance team:

“Originally we had a person dedicated to Nokia... In my opinion, neither he or his counterpart had the level of technical understanding to function effectively. They

became like super secretaries organizing meetings without being responsible of the content... Then we stopped the function.”

The situation was basically the same at Nokia’s side. A NTC manager commented on the coordination:

“It should be a co-ordinated process. We have all the process descriptions available which are formally in place. Another thing is if we are following those processes or not. The implementation is only on the way because of lack of time... I’m running four horses parallel at the same time... I believe and trust this relationship can improve a bit at least if I have more time to put to work for this relationship.”

It seems that not enough attention has been put on the management of the strategic alliance as such. Both companies trusted that the alliance people themselves could solve the problems and the tensions best and no relationship manager was needed. However, many interviewees (7/11) admitted that there definitely exists a need for relationship management as well. NTC had an alliance manager involved all the time even though the person has changed once. However, HP had an alliance manager in the beginning and has one at the moment but there was a period of time when nobody was exactly appointed as an alliance manager. A former HP France manager stated:

“I think the relationship manager has to be there from as early state as possible... I think we had too many changes into our own team during the alliance stages. One person got things started, then he left. Then there was nobody... I think we have gone through different levels of commitment and investment in terms of resources.”

Similarly, an HP Finland manager described his feelings about the alliance manager:

"It was just unfortunate that the HP alliance manager was more or less scrapped or cast out two years ago [1995]. The division was at that time counting much more on the field to play the role of alliance management. I think that never works."

Also NTC management felt that it was necessary to have alliance managers at both sides to co-ordinate the processes and functions. A manager from NTC told:

"I think an alliance manager is required to take care of all the activities... He has to be involved, to know what is happening and follow the whole action."

In addition to the role of co-ordinator, the alliance manager can be seen as person "*pounding the drum*" for the alliance and thus enhancing the trust and effective communication in and outside the alliance (Lewis 1990, 282). Furthermore, Spekman et al. (1996, 353) suggest that depending on the state of the business and the state of the relationship, alliance managers should be able to play different roles. An alliance clearly needs different kind of attention and coordination during different stages. For example, in the early stages of HP-NTC strategic alliance, there was a need for a strong person with R&D and telecommunications knowledge to manage the alliance. Now that the alliance has become more business-oriented and problems have arisen, a strong business-minded mediator would be more suitable.

4.4.9 *'Auditing', Monitoring Change, Amendment and Reorganization*

Several researchers confirm that it is of utmost importance to reconsider and review the objectives that have lead to the strategic alliance (Bronder & Pritzl 1992, 418; Forrest 1992, 34; Spekman et al. 1996, 350). If the alliance and the possible changes around the alliance activities are regularly 'audited', the possible effect on the stated goals and purpose of the alliance can be noticed quickly and effectively enough. However, if the new required strategic direction or events that

cut to the core of the alliance and seriously jeopardize the existence of the alliance are not recognized and acknowledged, the alliance might run into even bigger problems (Spekman et al. 1996, 350).

No official 'audit' process was in place in the HP-NTC strategic alliance. A former manager from HP France commented:

"There was no formal process or reviewing the alliance from the business point of view... The only criteria we had was how many orders we had. There was a formal procedure to review the technical issues..."

Similarly, a manager from NTC stated:

"There was no time to put in that. If things go as they should go, you don't pay any attention to them. If something starts to go wrong, you have not time to think why it is going wrong."

Moreover, a former manager from HP France explained the reality of managing problems as follows:

"We put in place a rather efficient yet quite complex escalation procedure for technical problems... Business problems we not at all treated the same way. It was more 'do it as it comes'."

The above comments again corroborates that this strategic alliance has greatly suffered from the lack of business vision and plan as discovered earlier. A lot of tensions during the alliance have been caused due to the differences in managing the business issues of the alliance.

Another interesting issue during the adaptation and improvement stage is the possible amendments that need to be made. The respondents explained that even

though there had been a lot of changes in terms of ways of working and processes, there had not been changes in the alliance agreement itself. However, the attitude was very flexible. As one former NTC manager noted:

“I think we were rather flexible in understanding that it [the agreement] was not written as a bible and should not be changed. “

As the agreements signed in 1993 have now expired, the companies are now able to take into consideration the needs to amend the alliance agreements.

To conclude, the business activities in the HP and NTC strategic alliance were quite poorly managed during the early stages of the alliance. This has certainly affected the success of the later stages and brought up weaknesses in the active management of the alliance. The poorly conducted business activities which have affected the success of the alliance were evaluation of internal potential, partner analysis, building shared vision and values and finally coordination.

4.5 Implementation of Interpersonal Activities Enhancing Success

As Spekman et al. (1996, 350) confirm “*an alliance is a complex interaction of business and interpersonal activities whose purpose is to achieve mutually beneficial goals*”. Therefore, the other aspect researched was the implementation of the interpersonal activities crucial to the alliance success. However, the interpersonal activities are often entwined and it is difficult to separate them from each other. Thus, the division of the activities of this section might appear somewhat artificial and forced.

4.5.1 Top Management and Internal & External Stakeholder Support

Several researchers have stressed the importance of top management support (Forrest 1992, Lewis 1990, Lorange et al. 1992). As already described before, both the top management and internal & external stakeholder support were very powerful and remarkable especially during the pre-alliance stage. The top managers had a common view about the purpose of the alliance and they clearly articulated their will to the other management levels as well as internal and external stakeholders. This further enhanced the development of internal and external stakeholder support. However, one former HP France manager pointed out an interesting issue:

“They [top management] were supportive but they were not providing the necessary resources to do the job. You can be supportive overall but if you cannot do your job on daily basis, then we have a problem...”

Some other HP managers also complained about the difficulty to convince the top management to provide resources for the alliance. The underlying reason for this could be the profitability thinking of HP corporation. Slowly, the top management at HP has started to realize that it is not possible to collect profits as fast in the telecommunications industry as in computer industry. Hopefully, the attitudes of top management will also change as their understanding of the matter grows.

Furthermore, a general failure during the development stage is to rely largely on the top management support and its power to solve all the problems. Both Stafford (1994, 69) and Shaughnessy (1995, 11) caution against overoptimism and wrong assumptions that even top management can make. There is no mystical commercial ethos that will protect any strategic alliance from failures (Shaughnessy 1995, 11). Instead, there is a lot of practical work to be done and techniques for partnership management to be applied.

4.5.2 *Selection of Committed Key People*

Lewis (1990, 291) emphasizes the careful selection of people with strong relationship-building skills to build the alliances. In addition, Lorange et al. (1992, 15) state that the selection of individuals for key positions is a vital step in alliance planning. Nevertheless, it seems that on all three sides of the HP-NTC strategic alliance the key people for the alliance operations were not specifically chosen. Of course, certain requirements had to be met such as former experience with cooperative tasks. However, this issue was discussed by a former manager from HP France who remarked:

“The key people were not chosen. They [higher level of management] said ‘you have a little bit of expertise here and there, here you go, let’s see’. A typical HP approach. Not a grandiose plan but step by step you will see how it goes.”

This feeling was supported by a NTC manager:

“People who knew best both the technology side and had experience in working with other companies. They were the same guys who worked with Tandem. Of course, in Nokia the technology competence is appreciated.”

The above comment brought up another issue concerning the selection of key people. Especially NTC managers seemed to evaluate the appropriateness of the key persons largely on the basis of their technical competence. A former HP France manager observed this:

“This is highly technical field but in an alliance you don’t only need technical people. You need people who can really work and make things work... The technical problems can always be solved. The human and relationship problems are the most difficult ones to solve. I’m not sure this has always been understood.”

Another concern around the key people of the alliance has been the amount of changes among them. The changes have affected trust, understanding and personal friendships which are of great significance for the success of the alliance. Loss of a key person can even lead to breakdown of an alliance and the replacement of the key person can become a source of uncertainty (Slowinski 1992, 46). Therefore, also Lewis (1990, 250) stresses the meaning of continuity and suggests that it is necessary to maintain close relationships on all levels to ensure some overlap and to secure long-term understanding and commitment. The empirical data presented in the next section will clearly indicate the results of discontinuity.

4.5.3 Building Rapport & Development of Trust and Understanding

One of the most challenging tasks in building a successful strategic alliance is to build trust and understanding (Wolff 1994, 12). Trust does not develop overnight and is very easily disrupted which can lead to a vicious cycle of mistrust (Kanter 1994, 105). The data gathered from the interviews clearly show that the building of trust and understanding started quite promisingly but that did not last very long. The development of trust is described by a former NTC manager:

“Trust and atmosphere were very good when we started negotiations. But then there was a conflict and the negotiations were not proceeding at all. I think that was a first time there was a misunderstanding... We solved the problem but afterwards I can say that there were signs that there was not total trust between the partners. I don't know what we were afraid of...”

Similarly, a former HP France manager commented:

“I think there was always the feeling that you have to be careful, perhaps more on HP than NTC side. This was due to the historical reasons such as the experience with a joint venture with Ericsson... On HP Finland side there was more trust and understanding than here.”

Discussing trust and understanding with the interviewees brought up very negative feelings and comments especially on Nokia side. A NTC manager presented his thoughts about trust and understanding as follows:

“There is very little common understanding and I think that we can’t talk about trust. There are many, many examples. I’m not going to go into them because it would take a day or two.”

Another NTC manager gave an example of the issues behind the lack of trust:

“In the beginning of 1996 we [NTC, HP France and HP Finland] agreed that we would share our market forecasts in the IN steering group meetings... We agreed that it would happen both ways. We [NTC] have obeyed that. First time HP showed their market forecasts and only on budgetary level, was in the beginning of 1997... If HP is hiding something.... then we actually can’t give all the information out to HP which could be beneficial for product development.”

Lack of trust and understanding was a shared feeling among the interviewees on both sides. A manager from HP Finland noted:

“On higher level of management the trust is there but on the tactical level it’s not fully there.”

Another HP Finland manager explained the situation more deeply:

“Trust was there in the beginning and the relationship was good. I think that people realized then that there are good and bad times... It was unfortunate that the whole organization changed and today I really feel that trust is not there anymore. It’s completely missing.”

Blomqvist (1995, 32) illustrates the development of trust in the following way:

“The process of trust is seen as a self-enforcing process; trust creates trust and distrust creates distrust. Trust is difficult to initiate, slow to grow, but always easy to break, which makes it most fragile. Once betrayed trust is difficult to heal... Quite often rational judgement on the competence of the other, and emotions blur in the mind’s complicated and invisible process, leading to trust or distrust.”

The above quote offers plenty of explanations for the lack of trust in the HP-NTC strategic alliance. First of all, there was trust among the alliance team during the early pre-alliance stage. However, as trust is difficult to initiate and slow to grow, the alliance team members described feelings of fear for the reasons they did not understand. This was probably a natural reaction of being caught by something new and inexperienced.

Second, the process of trust building is very vulnerable especially in the beginning of the relationship. Lewis (1990, 248) cautions that *“trust can be defeated by surprise, which reduces predictability”*. After the ‘honeymoon’, all three parties were surprised by plenty of issues such as the level of commitment, cultural differences and the difficulty to build the product and the business. Obviously, this led to the gradual disintegration of trust. Moreover, the development of trust is more interpersonal than organizational and therefore the process of disintegration was further enhanced by the changes in the alliance organization (Lewis 1990, 250; Wolff 1994, 13).

Third, once trust was lost, it involved a great deal of effort and energy to work harmoniously in the alliance. A lot of misunderstandings and issues which could

not be solved were due to the lack of trust. Again, distrust created distrust and no party was able to stay out of the vicious cycle (Kanter 1994, 105).

Fourth, trust is based on individual's beliefs and it is always perceived as well as subjective (Blomqvist 1995, 32). Therefore, as certain members of the alliance team lost their trust in the alliance itself or in the other members of the alliance team, the outcome was quite disastrous. Not only did they spread their frustration and distrust among their own organizations but also among the other organizations. Clearly, the alliance was caught in the vicious cycle.

4.5.4 Motivating Operational Staff

Building relationships between management levels of the alliance companies is not enough to guarantee the success of the alliance operations. As the actual alliance work starts, the employees at other levels in the organizations become involved in the alliance. According to Kanter (1994, 104) there is a possibility that the broader involvement might even be able to weaken the commitment of the management. This might have been partly true in the case of the HP-NTC strategic alliance.

Although the operational staff was not dedicated full-time to this specific relationship, it was motivated and interested in working for this alliance. The product itself was very exiting and challenging and thus made the cooperation between organizations easy. However, operational staff at HP France sometimes felt that Nokia's requirements were not always realistic. On the other hand, operational staff at NTC sometimes were disappointed with the level of commitment at HP France. A former HP manager commented:

"We made some very specific efforts to meet some Nokia requirements and deadlines to learn only that Nokia was pushing the release later. I think people were really

disappointed... It was the same on Nokia side. When we were late, they were really mad which created bad feelings...”

Despite the experiences described above, the operational level did not encounter the crises as seriously as management level. It seems that the most challenging and difficult problems were left for management to solve them or to take corrective action. Therefore, the disappointments and bad feelings of the operational staff were escalated to the management level and the operational work could be completed relatively well without interruption.

4.5.5 *Management Chemistry*

One of the most important factors on the personal side of business relationships is chemistry. Its presence creates an overall atmosphere for the alliance and builds the rapport between the top management as well as all other members of the alliance team. Also, Kanter (1994, 100) argues that during the possible times of tension, chemistry and rapport creates “a well of goodwill” which helps to solve the problems. Similarly, a manager from NTC argued that

“Good chemistry can fix a problematic situation... But if the performance of the partner is otherwise good, chemistry doesn’t count.”

The previous comment is acknowledged by Spekman et al. (1996, 352) who state that when the business is strong, it is easy to forget the interpersonal problems. This might lead to a false sense of security which lacks ‘*the strength of conviction in the face of adversity in the bad times*’ (Spekman et al. 1996, 352). On the other hand, it is possible to work successfully together without any specific chemistry with a good working relationship which was described by a former manager from HP France:

“Chemistry is more than just a good working relationship which comes from knowing your job, being polite and listening to others... Chemistry is just a little bit more, slightly above. It is very much dependant on a person.”

Indeed, the interviewees explained their personal relationships with the other members of the alliance team quite thoroughly. Most of the interviewees pointed out certain people in the alliance team with whom they had had an excellent chemistry. On the other hand, they mentioned the chemistry problems they had faced with some other managers. Overall, the chemistry was described good in the very beginning of the alliance operations but due to the changes of the key people, the feeling was partially destroyed and some chemistry problems arose. A manager from NTC commented:

“I have a chemistry problem with some HP people... It goes both ways... I have tried to keep the problem only business related but human nature is very special. It is very hard to keep business and personal feelings separated.”

The chemistry problems affected especially the communication. In fact, some managers whose role was the communication between the different parties, had a chemistry problem. They certainly tried to maintain a professional working relationship but it did not come naturally. Thus, also trust and understanding were endangered. Luckily, there were still people who did not have chemistry problems and could communicate with each other.

Some cures for the chemistry problems were introduced during the interviews as well. A manager from HP Finland suggested:

“We used to be much more together both informally and formally but not anymore. Now there are just meetings with very tight agenda and then we just leave and there's nothing more. We used to spend more time together and we had fun and we celebrated. I just proposed that we should bring people together, spend a weekend somewhere and forget the problems for a while.”

Similarly, another HP Finland manager pointed out what should be done:

“We should forget the business for a while and get to know each other as persons and human beings first.”

The above comments meet well with the previous literature which for instance suggests that synergies born on paper do not develop in practice until enough people in the alliance team know each other personally (Kanter 1994, 106). It is extremely important for the success of the alliance that it is not only thought in terms of deals but also in terms of relationships. The chemistry alone is not enough and even bad relationships can improve with a lot of work (Lewis 1990, 241). Therefore, the successful alliance management should take into consideration that enough time is invested into active building of the trusting relationships (Lewis 1990, 241; Wolff 1994, 12). Building personal friendships will be discussed more thoroughly in the following Section 4.4.6.

4.5.6 *Building Personal Friendships*

Building personal friendships in the alliance is very easy if there is enough chemistry between the people. However, personal relationships between the alliance team members are strongly encouraged even if the building of them would need more time and effort (Kanter 1994, 106; Shaughnessy 1995, 14; Spekman et al. 1996, 351-352; Wolff 1994, 12). Personal relationships help to build trust, understanding and respect, resolve conflicts and thus strengthen the relationship.

Most of the managers interviewed for this study told that they had personal friendships or relationships to certain extent with other alliance team members. Typical comments included ‘I have a very good relationship with X’ or ‘I have made personal friends with X’. Only two managers mentioned that they tried to

avoid personal relationships within business. A manager from NTC described his feelings:

“In business I have never been into personal relationships... Of course if you know the person, have the same kind of humor and the same way to operate, I build a personal relationship... For some reason I am not eager to build them.. I try to isolate my personal life from business. Quite often it is a big disadvantage as people do business rather than business does business.”

On the other hand, also some other interviewees made a clear distinction between personal relationships and friendships. They held personal relationships more superficial and business oriented than personal friendships which in turn were described to survive the differences and last even after the other person had left the alliance operations. Some of the interviewees told that they had such a good friendship with each other that they had met privately with their wives.

Despite the wide spectrum of good relationships and friendships, it seems that the alliance was undermined by the persons who were not willing to build personal relationships with other alliance team members. Therefore, it is of utmost importance that during the selection of key people, enough attention is paid to the interpersonal and relation-building skills such as negotiation skills, sensitivity and skills to rebuild damaged interpersonal relations (Lewis 1990, 291).

4.5.7 Commitment

Within such dynamic business environments as telecommunications and computers, it is extremely important that allies are truly committed to the cooperation. This has been an especially hot topic in the HP-NTC strategic alliance. On the one hand, the interviewees from all three organizations considered each other to be committed to the alliance itself to certain extent. However, the

general feeling of the interviewees was that NTC had been more committed to the alliance already since the beginning. A former manager from HP France commented:

“Looking backwards I believe Nokia exhibited a stronger commitment than HP. I always had the feeling that they are trying to pull us into something we don’t want. I felt that Nokia was more open and probably more in love with us than we were with them.”

Looking from NTC’s point of view, a manager from NTC analyzed commitments:

“HP has such an internal structure and culture that they are never committed to anything. That’s why it’s very hard to work with this alliance... I’m pretty worried about the road maps for the future product development path for instance... We have half a year’s visibility and I don’t have any ideas what HP is going to do after that...”

The previous comment is supported by a manager from HP Finland who had realized a difference in the commitment between Finnish and French organizations:

“Understanding what commitment is seems to be different in Finland and France. If we look at one word, a road map for instance. For Nokia it means a plan and a commitment in terms of features and time frame schedules. For HP a road map seems to mean only a plan, not a commitment. If this is not clarified, there will be problems in the early beginning.”

Further, NTC managers strongly criticized HP’s unwillingness and inability to commit to certain time frames which were extremely important to NTC. A manager from NTC remarked:

“It seems that HP has never understood that the timetables are cornerstones for our business. They are slipping from the agreed milestones without any explanation or they are too late to change the milestones... Whatever we agree, HP is never doing what is agreed.”

The previous comments are supported by Samli et al. (1996, 31) who declared that many problems in the planning and performance of the alliance can originate if partners have different time commitments. Obviously, HP's performance in this field has seriously undermined the trust NTC had previously in the alliance. Therefore, HP members of the alliance team should seriously consider the commitments they make or the reasons for not being able to commit to NTC's requirements. However, Shaugnessy (1995, 11) warns of the danger that a partnership becomes an excuse. He states that it is easier to find the other party to blame when things go wrong. Nevertheless, the alliance partners should realize that the fundamental mistake behind the excuse is the neglected management of alliance process (Shaugnessy 1995, 11).

The understanding of the prevailing situation and the difference in terms and usage of them seems to be slowly emerging within all three organizations. Both HP and NTC people have started to realize the underlying reasons for each others' behaviour. This was apparent from the following positive remarks. A manager from HP France noted:

"Maybe we can improve trust by first committing the right way and then fulfilling our commitments on both sides."

Moreover, a NTC manager remarked:

"There must be something good in HP as you are still doing this [IN business with NTC]. I respect HP and its commitment to be in this business because the product we are developing in this alliance is completely different than the other HP products."

Luckily, remainders of trust are still there and the companies can start the rebuilding of trust and understanding around it.

4.5.8 *Respect, Honesty and Sense of Togetherness*

Any business relationship flourishes if respect, honesty and sense of togetherness are present. Especially in cross-cultural settings, an effective cooperation can be built on an informed respect for differences among partners (Lewis 1990, 253). Both respect and honesty are essential to increase trust and therefore very important for alliance success (Kanter 1994, 105).

According to the interviewees respect is not a problem in this strategic alliance. Only one respondent did not clearly articulate his opinion about the topic. Others respected either HP or NTC as an alliance partner. Especially, NTC respected HP's long presence in the business. As a manager from NTC described:

"I respect HP because they seem to have patience to develop a long-lasting partnership."

However, another NTC manager pointed out difference between respect and reliance as follows:

"I respect HP as a partner but I don't rely on all things which they say."

Similarly, HP people described that in spite of the difficulties, they still respected NTC very much and regarded them to be a loyal partner. Yet, there were signs of lack of respect between HP France and HP Finland. HP Finland was quite dissatisfied with the level of motivation and commitment at HP France which affected their ability to respect the division. Also, the indistinctness in the roles and responsibilities damaged the respect seriously. Therefore, re-establishing the respect will be one of the major issues to be considered or the alliance cannot function effectively.

What comes to the honesty, the interviewees either thought that there was enough honesty in the alliance or they openly admitted that neither company had been honest with each other all the time. A former manager from HP France observed:

“There are internal pressures on both sides and you cannot always tell the truth to the other side. It’s very difficult. You have to be open to certain extent but there is something you cannot say... Nokia perceives us sometimes to be dishonest and that we are hiding things. I think they are right. This is due to the differences in cultures: Latin versus Scandinavian. Scandinavians tend to be very direct and clear. People of Latin origin have more fuzziness, they are ‘yes and no’-type of people.”

Again, the cultural aspect was considered to be relevant in the ways of operating. Another former HP manager presented a following analogy between alliance and marriage when discussing honesty and sense of togetherness:

“I would rank Nokia a little bit higher than HP. It has to do with the culture and mentality of Finnish people... HP entered this alliance with rather selfish and superficial objective: ‘let’s use Nokia as a channel. We don’t want to get married, we don’t want to spend two evenings per week with you.’ Whereas Nokia was looking more into a ‘let’s get together maybe for life’-relationship... The relationship was honest but we were a little bit more distant. You don’t lie but you don’t get involved. You are not that engaged.”

The previous comment illustrates again how much the different assumptions and expectations presented already earlier in Section 4.1.3 affected all the other activities of the alliance.

Also, the different cultural views about honesty became visible during the implementation & tactical management stage. It seems that not only national culture but also organizational culture affect how the honesty is perceived. NTC people considered their organization very open and honest whereas some HP

people referred to the need to hide things and not being totally open. However, it has to be remembered that HP is a multinational company whereas to great extent, NTC is a Finnish company with international operations.

The evolution that took place with the sense of togetherness seems to go hand in hand with the development of trust and understanding discussed previously in Section 4.4.3. The interviewees characterized the early stages of the alliance process as “very good” and remembered many good moments spent together. People felt that they were working together towards something very special and they could together succeed.

However, the positive feelings started slowly to disappear along the changes in the key personnel, problems in R&D and the time schedules as well as the weak business situation. Gradually, the alliance partners started to recognize weaknesses in each other, which further led to looking at the alliance partners separately rather than together. This again led to stereotyping to explain people's and organizations' behaviour. The result of the stereotyping is not always positive. Kanter (1994, 105) observes that “*stereotyping polarizes the partners, setting up us -versus - them dynamics that undermine the desire to collaborate*”.

It is of great significance for the success of the alliance that the sense of togetherness will be maintained through the bad times as well. Rather than stereotyping behaviours and interpreting poor behaviour as characteristic, alliance partners should invest time in trying to understand what is behind the behaviour. It must be understood that all parties involved bring something valuable to the alliance and should be respected. Thus, the sense of togetherness can prevail without diminishing trust and respect. Furthermore, accepting each other as equals will positively enhance building lasting friendships, which again will reinforce the success of the alliance. (Lewis 1990, 249-251)

4.5.9 *Willingness to Learn and Change & Flexibility*

As the company moves towards more mature stages of the alliance process, the need for continuous review and adaptation becomes even more necessary for the alliance to survive and succeed (Forrest1992, 34). The alliance parties should therefore possess enough flexibility and willingness to learn and change. In the HP-NTC strategic alliance, the respondents considered themselves more willing to learn and change than the other parties. However, the former managers from HP France admitted that their organization had lacked the willingness. One of them noted that

“If I go back to the time when I was in the alliance, the answer is no, we [HP France] were not willing to learn, listen and change. I think HP Finland was quite flexible because they understood how Nokia acts...”

All in all, the interviewees quite widely agreed that NTC was very flexible and willing to change whereas HP seemed to have problems in that area. The difference could be partly due to the size, history and organizational cultures of the companies but the influence of national culture cannot be excluded either. A manager from NTC commented on this:

“We [NTC] have to work hard to remain small and flexible... HP is five times bigger and the management structure and behaviour in their business, are different. Also, the Finnish character is that if something is wrong, you change it immediately.”

All the interviewees described many different areas of learning which are presented in Table 7. The areas are divided into business and interpersonal activities to illustrate the emphasis of the learning

Table 7: Areas of Learning in HP-NTC Strategic Alliance

TYPE OF ACTIVITY	AREA OF LEARNING
Business Activities	<ul style="list-style-type: none"> • Thorough pre-hand study of the partner • Need to assess own capabilities • Continuous analysis of business situation and planning • Continuous analysis of alliance • Acquiring knowledge about each others business • Need for process • Challenges of cross-cultural communication • Realistic expectations needed
Interpersonal Activities	<ul style="list-style-type: none"> • Regular contact between alliance manager and top management • Difficulty to establish common understanding • Selection of motivated key people • Avoiding unnecessary changes in key people • Serious commitment • Cultural differences • Difficulties with chemistry

The areas of learning that were commonly mentioned by the interviewees highlight both business and interpersonal activities essential to alliance success. The data gathered in the present study therefore support the previous alliance literature.

At the moment, the HP-NTC alliance is under the review as this study is being done. Therefore, the willingness to change and adapt to the prevailing situation and challenges can be evaluated in reality only after the whole circle of rebuilding is completed.

4.5.10 Appreciation, Integrity and Diplomacy

Some alliances live longer than others but sooner or later each alliance comes to a completion stage. For whatever reason the alliance is terminated, it always requires a particular amount of appreciation, integrity and diplomacy (Kanter 1994, 108). The interviewees of this study were encouraged to express their opinions about the topic by answering to the question "In your opinion, what should be taken into account when finishing an alliance?". Most of the respondents seemed to consider the question quite difficult to answer as they did not feel that HP-NTC alliance would come to an end very soon.

However, as the question did not exactly inquire the interpersonal activities when finishing an alliance, most of the responses concentrated on the business activities. The most important issues were if the objectives of the alliance had been achieved and if the partners were satisfied with the alliance outcome. Good communication was also mentioned to be important during the completion stage. Moreover, continuity of cooperation in some other project or field was regarded as an alternative to be considered. Only one respondent paid specifically attention to the interpersonal side of the alliance. A manager from HP Finland observed as follows:

"The parties should be able to separate in a very positive feeling... The top management and alliance management should part in a very good spirit and maybe later come together again..."

Finishing an alliance in 'a very good spirit' requires sensitivity and skills to integrate the past alliance activities into a positive outcome and ending. The success or failure in the final step can either damage or encourage the possible future involvement and attitudes of the alliance partners to work in other alliances (Murray & Mahon 1993, 110).

To conclude the empirical findings regarding the interpersonal activities, it must be emphasized that the business and interpersonal activities are intertwined and cannot be separated (Spekman et al. 1996, 350-351). This was true for the HP-NTC strategic alliance as well. The poor management of the business activities resulted in various problems in the interpersonal activities which in turn are very much intertwined. In fact, the interpersonal activities needing most attention and improvement were development of trust and understanding, commitment, building personal friendships and respect.

5. CONCLUSIONS

The final chapter summarizes the whole study and presents the major findings of the HP-NTC strategic alliance case. Also managerial implications are introduced and finally, suggestions for further research are presented.

5.1 Summary and Major Findings

The present study examined the factors contributing to the strategic alliance success and the successful alliance management during various stages of alliance process. The research question arose from the need to review the success of the case study entity, the strategic alliance between Hewlett-Packard and Nokia Telecommunications. Furthermore, as the most recent alliance studies stressed the understanding of alliance process as a critical factor for the alliance success, the research question was formulated as follows:

“How to manage a strategic alliance successfully during the different stages of alliance process?”

The theoretical framework of this study introduced an alliance process from pre-alliance stage to conclusion stage. In this context, certain business and interpersonal activities were presented for each alliance stage. They were assumed to be most critical in building a successful alliance and even more importantly, managing it successfully during the different alliance stages.

Both the research question and the framework of this study affected the selection of the research method. As the phenomenon under research was a process in the context of human situations and there was a need to get intimately acquainted with the phenomenon, the use of case study research seemed most appropriate. The empirical study indicated the elements of success and possible problems in the HP-NTC strategic alliance to be able to build the alliance around the elements of success and take some corrective action with the problems. Thus, the empirical data provided evidence for

- ① review
- ② adaptation and
- ③ improvement.

Consequently, the investigation of the analyzed data will allow HP and NTC to complete the circle of rebuilding presented in the process framework, and afterwards return back to the implementation and tactical management stage.

First, the findings of this study suggest that there are distinguishable alliance stages through which the alliance travels. However, many of the previous research (e.g. Bronder & Pritzl 1992, Forrest 1992, Kanter 1994, Pekar & Allio 1994) have not paid attention to the cyclical elements of the later stages of the alliance process. This study found out that an alliance more or less drifts through the early stages of

the alliance process due to the tremendous power of push factors urging towards the alliance. Therefore, the active guidance and management of the strategic alliance is more essential during the later stages of the alliance process.

The process framework presented in this study well describes the cyclical elements of the alliance process that become visible through the active management of the alliance process during the later stages of the alliance. Kanter (1994, 105) mentions a vicious cycle which makes success harder to gain. This study, however, presents a cycle of rebuilding which helps the alliance partners to remain successful on continuous basis.

Second, the findings of this study highly support the earlier research about the factors contributing to the success of alliance management. The case of HP-NTC strategic alliance illustrated that following business and interpersonal activities are most critical for success of the alliance:

- ❶ TRUST AND UNDERSTANDING
- ❷ COMMITMENT
- ❸ continuous coordination and good alliance manager
- ❹ regular reviews and flexibility
- ❺ evaluation of overall situation, own and partner's capabilities as well as each others' businesses
- ❻ building shared vision
- ❼ anticipating cultural differences

Moreover, the findings present that the HP-NTC strategic alliance has not been managed successfully during the different stages it has gone through. The companies did not anticipate the differences that would inevitably appear, and therefore were disappointed at each other. Therefore, building up the trust, understanding and commitment are now the most critical activities to pay attention to.

Despite the wideranging interest in the strategic alliances, there still exists a knowledge and experience gap among researchers and global managers. Too many times best practices and benchmarking are ignored as guides for the alliance management (Pekar & Allio 1994, 64). This means that alliance managers are often learning by doing themselves and not by studying the experiences of others. Instead of learning the hard way, companies should explore the different outcomes of the strategic partnerships of other companies in order to manage their own. Moreover, the alignment between espoused ideas and ideas in use presented by the alliance partners is very demanding and often fails. Therefore, a substantial need to understand the more profound, underlying elements of successful strategic alliance management has arisen.

Although several studies (e.g. Lewis 1990, Mohr & Spekman 1994, Spekman & Sawhney 1990, Wolff 1994) have already emphasized the extreme meaning of trust, understanding and commitment to the success of strategic alliance, it seems that these elements cannot be promoted too much. As the present study demonstrates, the alliance partners may feel confident and believe to possess enough knowledge about alliance management, and yet run into problems. Therefore, there is a justification for this study as another warning example of the extraordinary challenges that strategic alliance management poses. Hopefully, after the review, adaptation and improvement the HP-NTC strategic alliance will be a good example of how to guide an alliance from vicious cycle towards success.

5.2 Suggestions for Further Research

As previously discussed, there has been a shift in focus in the study of alliances towards understanding the later stages of the alliance process and the more profound determinants of success during these stages. The present study supports the need for extensive research about the review, adaptation and improvement.

Thus, there could be a possibility to “save” alliances instead of terminating them as failures.

Moreover, the interconnection between the business and interpersonal activities as well as the linkage between the different interpersonal activities need more thorough research.

REFERENCES:

- Badaracco, J L** (1991). *The Knowledge Link*. Boston: Harvard Business School Press.
- Bery, Varun & Bowers, Thomas A.** (1993). Rebuilding an Alliance. In *Collaborating to Compete: using Strategic Alliances and Acquisitions in the Global Marketplace*. eds. Bleeke, Joel & Ernst, David. New York: John Wiley.
- Bleeke, Joel & Ernst, David** (1993). The Death of the Predator. In *Collaborating to Compete: Using Strategic Alliances and Acquisitions in the Global Marketplace*. eds. Bleeke, J. & Ernst, D. New York: John Wiley.
- Blomqvist, Kirsimarja** (1995). *The Concept of Trust: An Interdisciplinary Literature Review and Analysis*. Lappeenranta, Finland. Lappeenranta University of Technology, Department of Business Administration. Research Report 2.
- Bronder, Christoph & Pritzl, Rudolf** (1992). Developing Strategic Alliances: A Conceptual Framework for Successful Cooperation. *European Management Journal*. Vol. 10. No. 4. December, pp. 412-421.
- Brouthers, Keith D., Brouthers, Lance Elliot and Wilkinson, Timothy J.** (1995). Strategic alliances: Choose Your Partners. *Long Range Planning*. Vol. 28. No. 3, pp. 18-25.
- Bucklin, Louis P. & Sengupta, Sanjit** (1993). Organizing Successful Co-Marketing Alliances. *Journal of Marketing*. Vol. 57. April, pp. 32-46.
- Doz, Yves & Shuen, Amy** (1987). *A Process Framework for Analyzing Cooperation between Firms*. Fontainebleau, France: INSEAD, Working Paper No 87/33.

Eisenhardt, Kathrine (1989). Building Theories from Case Study Research. *Academy of Management Review*. Vol. 14. No. 4, pp. 532-550.

Forrest, Janet E. (1992). Management Aspects of Strategic Partnering. *Journal of General Management*. Vol. 17. No. 4. Summer, pp. 25-40.

Gulati, Ranjay; Khanna, Tarun; Nohria, Nitin (1994). Unilateral Commitments and the Importance of Process in Alliances. *Sloan Management Review*. Spring, pp. 61-69.

Hales, Colin (1993). *Managing through Organisation*. London: Routledge.

Hamel, Gary (1990). *Competitive Collaboration: Learning, Power and Dependence in International Strategic Alliances*. Unpublished thesis. University of Michigan.

Harrigan, Kathryn Rudie (1986). *Managing for Joint Venture Success*. Lexington, Massachusetts: Lexington Books.

Johnson, Jean L., Cullen, John B., Sakano, Tomoaki, Takenouchi, Hideyuki (1996). Setting the Stage for Trust and Integration in Japanese-U.S. Cooperative Alliances. *Journal of International Business Studies*. Special Issue, pp. 981-996.

Kanter Moss, Rosabeth (1994). Collaborative Advantage: The Art of Alliances. *Harvard Business Review*. July-August, pp. 96-108.

Kirk, Jerome & Miller, Marc (1987). *Reliability and Validity in Qualitative Research*. Beverly Hills: Sage Publications, Inc.

Korvenmaa, Esa (1994). *Strateginen yhteistyö liiketoimintaketjun ja verkoston menestyksen edellytyksenä*. Notes presented at seminar arranged by IIR Finland Oy. 7th of December, 1994.

Kumar, Rajesh & Kofi, Nti (1995). *Differential Learning and Alliance Outcomes: The Role of Process and Outcome Discrepancies*. Proceedings of the University of Vaasa. Discussion Papers 188.

Kurvinen, Sirpa (1994). Älyverkköjärjestelmillä uudistetaan puhelinbisnestä. *Tekniikka ja Talous*. 23rd of January.

Lei, David & Slocum, John W. Jr. (1992). Global Strategy, Competence-Building and Strategic Alliances. *California Management Review*. Fall, pp. 81-97.

Lewis, J D (1990). *Partnerships for Profit: Structuring and Managing Strategic Alliances*. New York: Free Press.

Lorange, P. et al. (1992). Building Successful Strategic Alliances. *Long Range Planning*. Vol.25. No. 6. December, pp. 10-18.

Lorange, P. & Roos, J. (1992). *Strategic Alliances: Formation, Implementation, and Evolution*. Oxford: Blackwell Publishers.

Marcar Strategic Alliance Guidelines and Best Practices (1996).
http://www.marcar...lliance_guide.html.

Measure, a Magazine for Hewlett-Packard People (1997). May-June, p. 3.

- Mohr, Jakki & Spekman, Robert** (1994). Characteristics of Partnership Success: Partnership Attributes, Communication Behaviour, and Conflict Resolution Techniques. *Strategic Management Journal*. Vol. 15, pp. 135-152.
- Murray, Edwin A. Jr. & Mahon, John F.** (1993). Strategic Alliances: Gateway to the New Europe?. *Long Range Planning*. Vol. 26. No. 4, pp. 102-111.
- Ohmae, Kenichi** (1989). The Global Logic of Strategic Alliances. *Harvard Business Review*. March-April, pp. 143-154.
- Packard, David** (1995). *The HP Way: How Bill Hewlett and I Built Our Company*. New York: HarperCollins Publishers, Inc.
- Parkhe, Arvind** (1993). *Trust in International Joint Ventures*. Bloomington, Indiana: Discussion Paper #102.
- Patton, Michael Quinn** (1990). *Qualitative Evaluation and Research Methods*. Newbury Park: Sage Publications.
- Pekar, P. & Allio, R.** (1994). Making Alliances Work - Guidelines for Success. *Long Range Planning* Vol. 27. No. 4, pp. 54-65.
- Ralf, Mark; Hughes, Jon & Cox, Andrew** (1995). Developing Purchasing Leadership: Competing on Competence. *Purchasing and Supply Management*. October, pp. 37-42.
- Ring Smith, Peter & Van de Ven, Andrew** (1994). Developmental Processes of Cooperative Interorganizational Relationships. *Academy of Management Review*. Vol. 19. No. 1, pp. 90-118.

Roos, Johan & Øijord, Asbjørn (1992). *A Conceptual Model of Determinants and Indicators of Strategic Alliance Performance*. Sandvika, Norway: Norwegian School of Management. Working Paper 1992/29.

Samli, A. Coskun; Kaynak, Erdener; Sharif, Haroon (1996). Developing Strong International Corporate Alliance: Strategic Implications. *International Journal of Euromarketing*. Vol. 4. No. 3-4, pp. 23-36.

Shaughnessy, Haydn (1995). International Joint Ventures: Managing Successful Collaborations. *Long Range Planning*. Vol. 28. No. 3, pp. 10-17.

Slowinski, Gene (1992). The Human Touch In Successful Strategic Alliances. *Mergers & Acquisitions*. Vol. 27. No 1. July-August, pp. 44-47.

Smith, Brock J. & Barclay, Donald W. (1995). *Promoting Effective Selling Alliances: The Roles of Trust and Organizational Differences*. Cambridge, Massachusetts: Marketing Science Institute. Report No. 95-100.

Spekman, Robert & Sawhney, Kirti (1990). *Toward a Conceptual Understanding of the Antecedents of Strategic Alliances*. Cambridge, Massachusetts: Marketing Science Institute. Report No. 90/114.

Spekman, Robert & Salmond, Deborah (1992). *A Working Consensus to Collaborate: A Field Study of Manufacturer-Supplier Dyads*. Cambridge, Massachusetts: Marketing Science Institute. Report No. 92-134.

Spekman, Robert; Forbes, Theodore; Lynn, Isabella; MacAvoy, Thomas (1995). *Alliance Management: A View from the Past and a Look to the Future*. Cambridge, Massachusetts: Marketing Science Institute. Report No. 95/119.

Spekman, Robert; Forbes, Theodore; Lynn, Isabella; MacAvoy, Thomas (1996). Creating Strategic Alliances which Endure. *Long Range Planning*. Vol. 29. No. 3, pp. 346-357.

Stafford, Edwin R. (1994). Using Cooperative Strategies to Make Alliances Work. *Long Range Planning*. Vol. 27. No. 3, pp. 64-73.

Uotinen, Pekka (1994). Insinööriyhtiöt löysivät toisensa. *Kauppalehti*. 19th of January.

Uusitalo, Hannu (1991). *Tiede, tutkimus ja tutkielma: johdatus tutkielman maailmaan*. Juva: WSOY.

Wolff, Michael F. (1994). Building Trust in Alliances. *Research & Technology Management*. May-June, pp. 12-15.

Yin, Robert K. (1989). *Case Study Research: Design and Methods*. Beverly Hills: Sage Publications.

Vesa Tuomisto

25.9.1996

APPENDIX 1

Nokia Telecommunications
Jukka Lintusaari

fax. 5112 9639

MASTER THESIS ON ALLIANCE PERFORMANCE

Nokia - HP Strategic Alliance for Intelligent Networks was signed end of 1993. Lot of progress has been reached, business closed, ups and downs faced timely between companies.

Kirsi Rouhiainen, student at Helsinki School of Economics and an HP Finland employee, would be willing to research the performance of Nokia/ HP alliance from commercial point of view as the Master Thesis part of her final studies.

I'm asking now feedback from you , do you feel comfortable with the study and are willing to help Kirsi working on this subject during the next 6 months. Do you see any obstacles not giving Green Light for the study at all.

This study doesn't take more than 2-3 hours maybe twice during the studying period from you, and benefits are obvious.

Please give your personal feedback back to me latest October 4th, do we go for the study or not. Any other feedback for the objectives, framework, please.

Best regards

HEWLETT-PACKARD OY



Vesa Tuomisto
Nokia Global Account Manager

Appendix

Preliminary Framework for the thesis

Distribution

Nokia Telecommunications:

- Jussi Ilmarinen
- Jorma Lahtinen
- Jukka Lintusaari
- Juha Lipiäinen

Hewlett-Packard:

- Olivier Aba
- Virgil Marton
- Jonathan Sharon
- Jari Moilanen

Hewlett-Packard Oy	Katuosoite	Postiosoite	Puhelin	Telex	Telefax
	Piispankalliontie 17	PL 68			
	FIN-02200 Espoo	FIN-02201 Espoo	(90) 887 21	121563hewpa sf	(90) 887 2277
Hewlett-Packard Oy	Street address	Postaddress	Telephone	Telex	Telefax
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Dear Sirs

During this decade strategic alliance has become a phenomenon to be researched more widely than ever before. Generally, pre-alliance factors such as human resource management, organizational characteristics and learning as well as strategy related factors have gained more attention from the researchers. However, the alliance effectiveness and actual performance is of great importance to both allies. These factors are hard to determine as the strategic meaning of the alliance can be so loosely understood and even different to the partners of the alliance.

As a student majoring in international business at Helsinki School of Economics and Business Administration I am interested in focusing on research of strategic alliance outcome in my master's thesis starting this autumn.

I am working at Hewlett-Packard Finland as credit analyst with a background in Sales Admin processing Nokia's orders. The collaboration agreement for Intelligent Networks between Hewlett-Packard (HP) and Nokia has not been researched yet and would seem to be of great interest for both parties to be analyzed. The focus would be on performance and general characteristics of a successful strategic alliance.

It is self-evident that strategic alliance is always formed to create value for both partners. Questions arise for different alliance phases: what are the values that HP and Nokia aim at? What is the strategy to achieve these values? How successfully these values have been achieved in the strategic alliance? What could be done to achieve the set values more efficiently? These are the sub-problems but the main question is **how to create a successful strategic alliance and what are the key characteristics for mutual success.**

The purpose of the thesis would be to focus on the process of strategic alliance formation and success factors/problems. Furthermore, an important aspect would be the organizational learning achieved during the study. Technical issues, design and R&D would **not** be researched as the commercial side of strategic alliance can be examined alone. However, it would be necessary to interview persons at different levels of both organizations to collect data for the case study.

The preliminary framework for the thesis is as follows:

- | | |
|-----|---|
| 1 | Introduction |
| 2 | Theory |
| 2.1 | Strategic alliance |
| 2.2 | Elements of success |
| 2.3 | Obstacles for success |
| 3 | Methodology (if not included in introduction) |
| 4 | Case HP-Nokia |
| 4.1 | Pre-alliance phase |
| 4.2 | Phase I during alliance |
| 4.3 | Phase II during alliance etc. |
| 4.4 | Alliance performance |
| 5 | Discussion and conclusions |

As I clearly understand that the thesis would deal with sensitive information which must be kept private, I therefore would like to receive permission from all parties for the research. Furthermore, as the thesis would contain "strategic information" as well as "inside information", it is possible to announce thesis CONFIDENTIAL/SECRET on year-to-year basis as long as HP and Nokia so wish.

At this point of the study it must be emphasized that the research plan and framework are very loose and suggestions concerning the issues to be researched are more than welcome. However, not only do I find this topic very interesting and challenging but I also believe that this study would improve the understanding of both HP and Nokia about their strategic alliance and its effectiveness when striving for competitive advantage.

I am looking forward to starting signal!

Yours sincerely

Kirsi Rouhiainen

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QUESTIONS:**1 General**

- In your opinion, how should the success of a strategic alliance be defined?
- In your opinion, what are the elements of successful strategic alliance?
- How would you describe yourself (HP France) as an alliance partner?
- How would you describe Nokia as an alliance partner?
- What kind of expectations did you (HP FRANCE) have for this alliance and have they been met? If they have not been met, which of them have not and why?
- Has this alliance had an impact on decisions concerning other possible alliance activities with Nokia or other partners? What kind of impact?

2 Pre-alliance stage

- Did you make some kind of overall situational analysis before entering into a strategic alliance?
- Did you somehow evaluate internal potential and value creation?
- What kind of partner search did you go through and how was your partner screening?
- Did the top management and internal + external stakeholders support strategic alliance?
- How did you choose key people for alliance operations?
- Did you use 'benchmarking'/literature/consultants/legal advisors to acquire information about strategic alliance formation and management?

3 Development stage

- How did you analyze Nokia as an partner? Why did you choose Nokia?
- Do you think that Nokia and HP had compatible vision/goals/strategies/values/cultures?
- How did trust and understanding develop? Are these elements still in the alliance?
- Did management have some kind of chemistry ?
- Were operational staff somehow motivated to work for this alliance?
- How did the contract negotiations proceed? Any problems?

- In your opinion, what should be taken into account when finishing an alliance?
- Do you consider the exit terms in the alliance agreement easy?
- Did Nokia and HP (easily) build shared vision, values and communication tools?

4 Implementation and Management stage

- Do you think that both partners have become/are committed to the alliance?
- Is communication flowing without barriers?
- Do you think this alliance has a certain spirit or culture?
- How do you implement changes to the alliance agreement?
- How do you coordinate alliance?
- Have you built personal friendships with the alliance people (both Nokia & HP)?
- Have there been changes in key personnel of the alliance? What kinds of impacts did these changes have on the alliance (communication/trust/alliance success/commitment/understanding/chemistry)?

5 Review stage

- How do you monitor business changes that could have an impact on the alliance?
- Do you have any formal procedure to review the alliance performance or manage problems?
- Do you respect Nokia/HP Finland as an alliance partner?
- Has the interdependence between the partners grown from the start?
- Do you think there is 'sense of togetherness' and enough honesty in the alliance?
- What could/should be otherwise in this alliance? Is there any need for change/improvement?

6 Adaptation and Improvement

- Has the alliance agreement been amended?
- Do you consider yourself (HP FRANCE as an alliance partner) willing to learn and change? How about Nokia and HP Finland?
- Do you consider yourself (HP FRANCE as an alliance partner) flexible? How about Nokia and HP France?

- Would you be willing to reorganize the alliance structure/division of labour/resource allocation? Would you be willing to broaden the scope of alliance?
- What do you think about the future of Nokia-HP alliance?
- Do you think that you (HP FRANCE) have learnt something during this alliance? What?
- Do you consider Nokia-HP IN-alliance successful?
 - If yes, why?
 - If not, why?
 - If only partly, why?
- On the scale from 4-10 which grade would you give to the alliance management?

LIST OF INTERVIEWEES

<i>Name</i>	<i>Title</i>	<i>Organization</i>	<i>Language(*)</i>	<i>Place and Date of Interview</i>
ABA, Olivier	Supply Manager	Ericsson - Hewlett-Packard Technology Grenoble (France)	E	Grenoble, 21 st of January, 1997
BOUDALIER, Pascal "Short interview"	Product Manager, IN products	Hewlett-Packard Grenoble (France) Telecommunication Networks Division	E	Grenoble, 20 th of January, 1997
CLAUSEL, Gilbert "Short interview"	Channel Manager	Hewlett-Packard Grenoble (France) Telecommunication Networks Division	E	Grenoble, 21 st of January, 1997
ILMARINEN, Jussi	Vice President	Nokia Telecommunications Oy (Finland) IP Network Systems	E	Helsinki, 4 th of February, 1997
LAHTINEN, Jorma	Product Area Manager	Nokia Telecommunications Oy (Finland) IN Platforms	E	Helsinki, 13 th of January, 1997
LINTUSAARI, Jukka	Department Manager	Nokia Telecommunications Oy (Finland) NWS System Marketing	E	Helsinki, 16 th of December, 1996
LIPIÄINEN, Juha	Head of IN Platforms	Nokia Telecommunications Oy (Finland)	E	Helsinki, 10 th of January, 1997

MARTON, Virgil	General Manager	Hewlett-Packard Grenoble (France) Telecommunication Networks Division	E	Grenoble, 20 th of January, 1997
MOILANEN, Jari	Account Manager, Nokia Partner Business	Hewlett-Packard Oy (Finland)	E	Espoo, 3 rd of January, 1997
SHARON, Jonathan	Manager, Marketing Programs, Personal Work- stations Program	Hewlett-Packard Grenoble (France) Performance Desktop Computing Operation	E	Grenoble, 20 th of January, 1997
TUOMISTO, Vesa	Nokia Global Account Manager	Hewlett-Packard Oy (Finland)	E	Espoo, 31 st of January, 1997

Language (*): E = English

BACKGROUND INFORMATION INTELLIGENT NETWORKS

Intelligent Network (IN) is not a new physical network, but rather an architecture and enabling technology to introduce, control and manage services more effectively, economically and rapidly than is possible with traditional network architecture.

The IN architecture is the key to the ability to offer services such as Freephone, Premium Rate, Calling-Card Validation and Virtual Private Networks on a large scale without the burden of individual updates to local and regional exchanges.

Intelligent Network Driving Forces

In the competitive environment of the '90s the capability to provide new services fast and in a cost-effective way is a critical success factor for the network operators. IN is an important element in moving from the engineering oriented telecommunications world to a market and customer-oriented offering of services in a cost-effective way. The driving force behind IN is competition. IN is a vehicle with which operators can differentiate their service offering. IN benefits include:

- **Additional revenue for the telecommunications operators** from new services and the increased traffic generated by these services. Customers expect low prices on the basic telecommunications services, but are ready to pay more for the enhanced services and solutions that give them real added value.
- **Better customer service.** IN enables fast service deployment and customized service according to individual needs. These, together with high reliability and ability to provide versatile management information, contribute to high perceived service quality, a key success factor in a competitive environment.

- **Cost efficiency.** A major long-term objective of IN is network-cost optimization. Standardized interfaces enable vendor independence, less complicated switching systems and a flexible network architecture that allows smooth evolution to meet market demands. Centralized service management and its integration with administrative operations systems (OSs), like billing and service-provision systems, contribute to lowering operational costs.

Intelligent Network Services

A whole range of different services are made possible with the IN architecture. The most typical of these, in the first IN implementations, are of the following generic service types:

- alternate billing/number-translation services
- cashless-calling services
- advanced business services
- mobility services
- mass calling services

Typical examples of the alternate billing/number-translation services are *Freephone* and *Premium Rate* services, where a universal number not tied to any numbering area is used and the caller pays charges different from those applied in basic voice telephony.

Calling Card, *Credit Card* and *A-subscriber Validation* are typical examples of cashless-calling services, where the payment method differs from normal voice telephony.

Virtual Private Networks and *Area-Wide Centrex* are typical advanced business services which offer capabilities such as closed-user groups, private numbering plans and specialised billing using public network facilities.

Mobility services facilitate the receipt of calls as well as their origination irrespective of the location. Typical services include *Personal Number* and *Universal Personal Telecommunications* services.

The greatest benefit of the IN architecture is that new services need not be implemented separately in each exchange. Instead, the services are provided at the level of a database, whose standardised interfaces permit the realisation of services independent of the database and exchange technologies.

Physical Components of IN

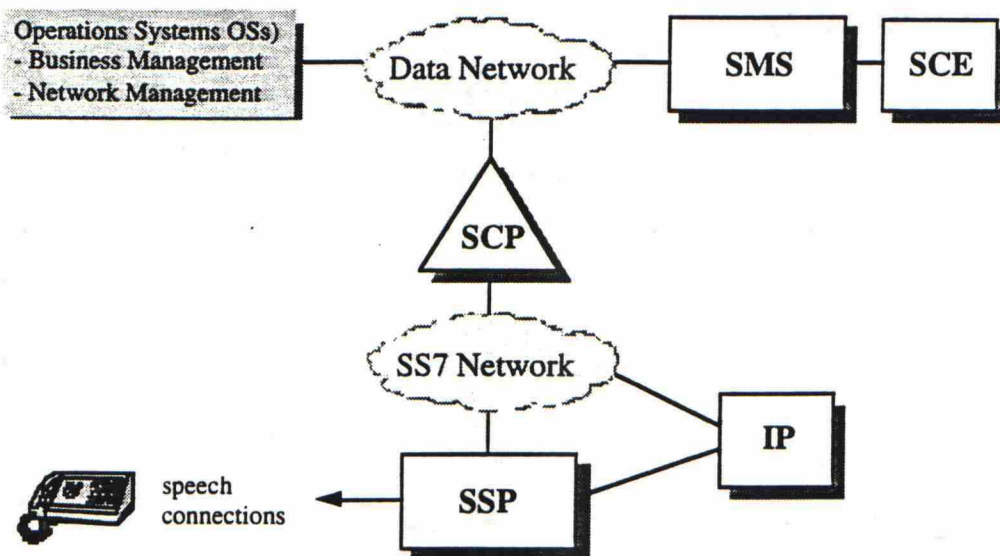


Figure 1. Physical components of IN

The IN architecture consists of the following systems:

- Service Control Point (SCP) contains a centralized online service database and executes the service logic programs for call control purposes.
- Selected exchanges that are upgraded to Service Switching Points (SSPs). The SSP contains trigger points for recognizing service access codes and sending service requests to the SCP. The SSP then executes the elementary operations towards the switching network under instruction of the SCP.

- Intelligent Peripherals (IPs) are service enhancement components, offering personalised and controlled services like announcements and digit collection.
- Service Management System (SMS) is used to download the databases to the SCPs, to collect statistical and measurement data and to provide interfaces to service subscribers for the management of service parameters.
- Service Creation Environment (SCE) consists of the tools for development of Service Logic Programs.

The IN elements also interface with Network Management Systems and Operations Systems such as billing and service provisioning systems.